

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

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**ORDER R5-2014-XXXX  
NPDES NO. CA0082490**

**WASTE DISCHARGE REQUIREMENTS FOR  
BURNEY FOREST PRODUCTS, A JOINT VENTURE,  
SHASTA GREEN, INC., AND FRUIT GROWERS SUPPLY COMPANY  
BURNEY FOREST POWER  
SHASTA COUNTY**

The following Discharger is subject to waste discharge requirements (WDR's) set forth in this Order:

**Table 1. Discharger Information**

Discharger	<b>Burney Forest Products, a joint venture, Shasta Green, Inc., and Fruit Growers Supply Company</b>
Name of Facility	<b>Burney Forest Power</b>
Facility Address	<b>35586-B Highway 299 E</b>
	<b>Burney, CA 96013</b>
	<b>Shasta County</b>

**Table 2. Discharge Location**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Discharge Point Latitude</b>	<b>Discharge Point Longitude</b>	<b>Receiving Water</b>
SW-001	Storm Water	40° 52' 35" N	121° 43' 00" W	Canyon Creek

**Table 3. Administrative Information**

This Order was adopted on:	<b>&lt;Adoption Date&gt;</b>
This Order shall become effective on:	<b>&lt;Effective Date&gt;</b>
This Order shall expire on:	<b>&lt;Expiration Date&gt;</b>
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	<b>[Choose: <u>180 days prior to the Order expiration date</u> OR <u>&lt;insert date&gt;</u>]</b>
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Valley Region have classified this discharge as follows:	<b>Minor</b>

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **XXXXX**.

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**PAMELA C. CREEDON**, Executive Officer

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## I. FACILITY INFORMATION

Information describing Burney Forest Power (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

## II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Central Valley Water Board), finds:

- A. Legal Authorities.** This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.
- B. Background and Rationale for Requirements.** The Central Valley Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- D. Notification of Interested Parties.** The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- E. Consideration of Public Comment.** The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order R5-2007-0061 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Valley Water Board from taking enforcement action for past violations of the previous Order.

### **III. DISCHARGE PROHIBITIONS**

- A.** Discharge of wastewater, including storm water at locations or in a manner different from that described in this Order is prohibited.
- B.** The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions I.G. and I.H. (Attachment D).
- C.** Neither the discharge nor its treatment shall create a nuisance as defined in section 13050 of the California Water Code (CWC).
- D.** The discharge of recycle water from log sprinkling, commingled recycle and storm water (i.e. first flush), cooling tower blowdown, boiler blowdown, demineralizer regeneration waste water, or any other waste of recognizable sawmill or cogeneration origin to surface waters or surface water drainage courses is prohibited.
- E.** The discharge of leachate from wood fuel stockpiles to surface waters or surface water drainage courses is prohibited.
- F.** The discharge of ash, bark, sawdust, wood, debris, or any other wastes recognized as originating from sawmill or cogeneration operations to surface waters or surface water drainage courses is prohibited.
- G.** Discharge of ash and cooling tower sludge to surface waters is prohibited.
- H.** The discharge of hazardous or toxic substances, including water treatment chemicals, solvents, or petroleum products (including oil, grease, gasoline and diesel) to surface waters or groundwater is prohibited.

### **IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS**

#### **A. Effluent Limitations – Discharge Point SW-001**

##### **1. Final Effluent Limitations – Discharge Point SW-001**

The Discharger shall maintain compliance with the following storm water effluent limitations at Discharge Point SW-001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

- a. The Discharge shall maintain compliance with the storm water effluent limitations specified in Table 4:

**Table 4. Effluent Limitations**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Settleable Solids	mL/L	0.1	0.2	--	--
pH	s.u.	--	--	6.0	9.0

b. **Acute Whole Effluent Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

- i. 70%, minimum for any one bioassay; and
- ii. 90%, median for any three consecutive bioassays.

**2. Interim Effluent Limitations – Not Applicable**

**B. Land Discharge Specifications – Log Deck Recycle Pond and Power Plant Pond**

1. The discharge of waste classified as “hazardous” as defined in section 2521(a) of Title 23, California Code of Regulations (CCR), or “designated” (other than as specifically allowed in this Order), as defined in section 13173 of the CWC, to the ponds is prohibited.

**C. Recycling Specifications – Not Applicable**

**V. RECEIVING WATER LIMITATIONS**

**A. Surface Water Limitations**

The discharge shall not cause the following in Canyon Creek:

1. **Biostimulatory Substances.** Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
2. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.
3. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.
4. **Dissolved Oxygen:**
  - a. The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass;
  - b. The 95 percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor
  - c. The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time.
5. **Electrical Conductivity (EC).** The electrical conductivity to exceed 900  $\mu$ mhos/cm. An annual averaging period may be applied when determining compliance with the EC limitation.

- 6. Floating Material.** Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.
- 7. Iron, Total Recoverable.** Iron to exceed the Secondary MCL – Consumer Acceptance Level or 300 ug/L. An average annual receiving water limit of 300 ug/L for iron is included in this Order based on the Basin Plan's narrative chemical constituents objective.
- 8. Oil and Grease.** Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- 9. pH.** The pH to be depressed below 6.5 nor raised above 8.5.
- 10. Pesticides:**
  - a. Pesticides to be present, individually or in combination, in concentrations that adversely affect beneficial uses;
  - b. Pesticides to be present in bottom sediments or aquatic life in concentrations that adversely affect beneficial uses;
  - c. Total identifiable persistent chlorinated hydrocarbon pesticides to be present in the water column at concentrations detectable within the accuracy of analytical methods approved by USEPA or the Executive Officer;
  - d. Pesticide concentrations to exceed those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40 CFR 131.12.);
  - e. Pesticide concentrations to exceed the lowest levels technically and economically achievable; [for water bodies in the Sac/SJ Basins]
  - f. Pesticides to be present in concentration in excess of the maximum contaminant levels set forth in CCR, Title 22, division 4, chapter 15; nor
  - g. Thiobencarb to be present in excess of 1.0 µg/L.
- 11. Radioactivity:**
  - a. Radionuclides to be present in concentrations that are harmful to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
  - b. Radionuclides to be present in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of section 64442 and Table 64443 of section 64443 of Title 22 of the California Code of Regulations.
- 12. Suspended Sediments.** The suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- 13. Settleable Substances.** Substances to be present in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
- 14. Suspended Material.** Suspended material to be present in concentrations that cause nuisance or adversely affect beneficial uses.

- 15. Taste and Odors.** Taste- or odor-producing substances to be present in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses.
- 16. Temperature.** The natural temperature to be increased by more than 5°F. Compliance to be determined based on the difference in temperature at RSW-001 and RSW-002.
- 17. Toxicity.** Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- 18. Turbidity:**
- Shall not exceed 2 Nephelometric Turbidity Units (NTU) where natural turbidity is less than 1 NTU;
  - Shall not increase more than 1 NTU where natural turbidity is between 1 and 5 NTUs;
  - Shall not increase more than 20 percent where natural turbidity is between 5 and 50 NTUs;
  - Shall not increase more than 10 NTU where natural turbidity is between 50 and 100 NTUs; nor
  - Shall not increase more than 10 percent where natural turbidity is greater than 100 NTUs.
- 19. Hardness-Dependent Metals.** The CTR and Basin Plan contain hardness-dependent water quality criteria and objectives for freshwater aquatic-life for cadmium, copper, lead, silver, and zinc. The discharge shall not cause the water quality in Canyon Creek to exceed the subject hardness-dependent criteria and objectives based on the downstream receiving water hardness at time of sample collection:

**Table 5. Hardness-Dependent Criteria and Objectives<sup>1</sup>**

Parameter (Dissolved)	Criteria Continuous Concentration (CCC) (4-day average, µg/L)	Criteria Maximum Concentration (CMC) (1-hour average, µg/L)
Cadmium	$CCC = (\exp\{0.7852[\ln(\text{hardness})] - 2.715\}) \times (1.101672 - \{[\ln(\text{hardness})] \times [0.041838]\})$	$CMC = (\exp\{1.128[\ln(\text{hardness})] - 3.6867\}) \times (1.136672 - \{[\ln(\text{hardness})] \times [0.041838]\})$ and Basin Plan, maximum: $\exp\{1.160[\ln(\text{hardness})] - 5.777\}$
Copper	$CCC = (\exp\{0.8545[\ln(\text{hardness})] - 1.702\}) \times (0.960)$	$CMC = (\exp\{0.9422[\ln(\text{hardness})] - 1.700\}) \times (0.960)$ and Basin Plan, maximum: $\exp\{0.905[\ln(\text{hardness})] - 1.612\}$
Lead	$CCC = (\exp\{1.273[\ln(\text{hardness})] - 4.705\}) \times (1.46203 - \{[\ln(\text{hardness})] \times [0.145712]\})$	$CMC = (\exp\{1.273[\ln(\text{hardness})] - 1.460\}) \times (1.46203 - \{[\ln(\text{hardness})] \times [0.145712]\})$
Silver	--	$CMC(\text{max}) = (\exp\{1.72[\ln(\text{hardness})] - 6.52\}) \times (0.85)$
Zinc	$CCC = (\exp\{0.8473[\ln(\text{hardness})] + 0.884\}) \times (0.986)$	$CMC = (\exp\{0.8473[\ln(\text{hardness})] + 0.884\}) \times (0.978)$ and Basin Plan, maximum: $\exp\{0.830[\ln(\text{hardness})] - 0.289\}$

1 Source: Central Valley Region Basin Plan and California Toxics Rule (40 CFR 131.38).

## B. Groundwater Limitations

Release of waste constituents from any portion of the Facility shall not cause groundwater to:

1. Contain any of the following constituents in concentrations greater than listed or greater than natural background quality, whichever is greater.

**Table 6. Groundwater Limitations**

Constituent	Units	Limitation
Electrical Conductivity @ 25°C <sup>1</sup>	µmhos/cm	900
Iron	µg/L	300
Manganese	µg/L	50

2. Exhibit a pH of less than 6.5 or greater than 8.4 pH units.
3. Impart taste, odor, chemical constituents, toxicity, or color that creates nuisance or impairs any beneficial use.

## VI. PROVISIONS

### A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.
2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
  - a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, CCR, division 3, chapter 26.
  - b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
    - i. violation of any term or condition contained in this Order;
    - ii. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
    - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
    - iv. a material change in the character, location, or volume of discharge.

The causes for modification include:



- *New regulations.* New regulations have been promulgated under section 405(d) of the CWA, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- *Land application plans.* When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
- *Change in sludge use or disposal practice.* Under 40 CFR 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Central Valley Water Board may review and revise this Order at any time upon application of any affected person or the Central Valley Water Board's own motion.

- c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Central Valley Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

- d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
- i. Contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
  - ii. Controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

- e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.
- g. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.

- h. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- i. Safeguard to electric power failure:
  - i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.
  - ii. Upon written request by the Central Valley Water Board, the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past 5 years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Central Valley Water Board.
  - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Central Valley Water Board not approve the existing safeguards, the Discharger shall, within 90 days of having been advised in writing by the Central Valley Water Board that the existing safeguards are inadequate, provide to the Central Valley Water Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Central Valley Water Board, become a condition of this Order.
- j. The Discharger, upon written request of the Central Valley Water Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under the Central Valley Water Board Standard Provision contained in section VI.A.2.i of this Order.

The technical report shall:

- i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
- ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
- iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Central Valley Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

- k. A publicly owned treatment works whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last 3 years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the Discharger shall notify the Central Valley Water Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Central Valley Water Board may extend the time for submitting the report.
- l. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
- m. The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.
- n. For publicly owned treatment works, prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a permanent decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Water Code section 1211).
- o. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Central Valley Water Board and a statement. The statement shall comply with the signatory and certification requirements in the federal Standard Provisions (Attachment D, section V.B) and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

- p. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- q. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Central Valley Water Board by telephone (530) 224-4845 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

## **B. Monitoring and Reporting Program (MRP) Requirements**

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. Conditions that necessitate a major modification of a permit are described in 40 CFR 122.62, including, but not limited to:
  - i. If new or amended applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.
  - ii. When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.
- b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.
- c. **Mercury.** If mercury is found to be causing toxicity based on acute or chronic toxicity test results, or if a TMDL program is adopted, this Order shall be reopened and the interim mass effluent limitation modified (higher or lower) or an effluent concentration limitation imposed. If the Central Valley Water Board determines that a mercury offset program is feasible for Dischargers subject to a NPDES permit, then this Order may be reopened to reevaluate the interim mercury mass loading limitation(s) and the need for a mercury offset program for the Discharger.
- d. **Underdrain Evaluation.** This Order may be reopened for modification, or revocation and reissuance, as a result of the findings in the Underdrain Evaluation.

- e. **Log Deck Flushing Update.** This Order may be reopened for modification, or revocation and reissuance, as a result of the findings of the Log Deck Flushing Update.

## 2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Log Deck Flushing Update.** The Discharger shall develop a work plan for conducting an update to their Log Deck Flushing Study, as described in the Fact Sheet. The work plan shall be submitted to the Central Valley Water Board for approval within **6 months of the effective date of this Order**. The results of the Log Deck Flushing Update shall be submitted **within 30 months** of the effective date of this Order.
- b. **BMP Improvement Evaluation.** If any storm water benchmark value or receiving water limitation is exceeded, the Discharger must conduct a BMP Improvement Evaluation and implement, if necessary, BMP improvements to reduce the storm water pollutant concentrations below the benchmark value and/or eliminate the receiving water violation. The BMP Improvement Evaluation and proposed BMP improvements must be submitted to the Central Valley Water Board for comment within 60 days of the exceedance or violation date. The BMP improvement(s) must be implemented as soon as practicable thereafter. The Facility Storm Water Pollution Prevention Plan (SWPPP) shall be updated in response to any implemented BMP improvements, as appropriate.
- c. **Leak Detection Test.** The Discharger shall develop a workplan for conducting leak detection testing for the pond liner in both the log-deck recycle pond and the power plant pond. The work plan shall be submitted to the Central Valley Water Board for approval within **6 months of the effective date of this Order**. The results of the Leak Detection shall be submitted **within 4 years of the effective date of this Order**.
- d. **Underdrain Evaluation.** The Discharger shall develop a workplan for conducting an underdrain investigation evaluation in order to determine to the source of drainage collection under the log-deck recycle pond. The Plan shall be submitted to the Central Valley Water Board for approval within **6 months of the effective date of this Order**. The results of the Underdrain Evaluation shall be submitted **within 24 months of the effective date of this Order**.

## 3. Best Management Practices and Pollution Prevention

This permit requires implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in the storm water discharge.

- a. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Facility. The SWPPP shall be submitted to the Central Valley Water Board **within 6 months following the effective date of this Order**. The SWPPP must include the information needed to demonstrate compliance with all requirements of this Order and shall contain at a minimum, the following elements:

- i. Facility Name and Contact information
  - ii. Site Map
  - iii. List of Significant Materials
  - iv. Description of Potential Pollution Sources
  - v. Assessment of Potential Pollutant Sources
  - vi. Minimum BMPs
  - vii. Advanced BMPs, if applicable
  - viii. Monitoring Implementation Plan
  - ix. Date that SWPPP was initially Prepared and the Date of Each SWPPP Amendment, if applicable.
- b. **SWPPP Revisions.** The Discharger shall amend the (SWPPP) whenever there is a change in construction, site operation, or maintenance, which may affect the discharge of significant quantities of pollutants to surface water or groundwater. The SWPPP must also be amended if there are violations of this permit, or the Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges. If the SWPPP has been significantly revised, the revised SWPPP shall be submitted to the Central Valley Water Board for review.
- c. A copy of the SWPPP shall be maintained at the facility.
- d. **BMP Summary Table.** The Discharger shall prepare a table (to be included in the SWPPP) summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.
- e. **Facility-Specific BMP – First Flush Collection.** Each year, after cessation of log-deck sprinkling, the Discharger shall collect the first two inches of rainfall (i.e. “first flush” or “commingled log deck recycle-water and storm water”) from the log-deck area and discharge the flush event to the log-deck recycle pond. The first flush shall not reach surface water. The first flush must be collected and discharged to the log-deck recycle pond after any subsequent sprinkling of the logs prior to log-deck storm water discharge to surface water.

#### 4. Construction, Operation and Maintenance Specifications

- a. **Log Deck Recycle Pond, Power Plant Pond, and Storm Water Retention Pond Operating Requirements.**
  - i. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
  - ii. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives
  - iii. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
    - (a) An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.

- (b) Weeds shall be minimized.
- (c) Dead algae, vegetation, and debris shall not accumulate on the water surface.
- iv. Freeboard shall never be less than 2 feet (measured vertically to the lowest point of overflow) except if lesser freeboard does not threaten the integrity of the pond, no overflow of the pond occurs, and lesser freeboard is due to direct precipitation or storm water runoff occurring as a result of annual precipitation with greater than a 100-year recurrence interval, or a storm event with an intensity greater than a 25-year, 24-hour storm event.
- v. Objectionable odors originating at this Facility shall not be perceivable beyond the limits of the wastewater pond areas (or property owned by the Discharger).
- vi. As a means of discerning compliance with Construction, Operation, Maintenance Specification 4.a.v., the dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/L.
- vii. Ponds shall not have a pH less than 6.0 or greater than 9.0.

## 5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

## 6. Other Special Provisions

### a. Sludge Disposal

- i. Collected screening, sludges, wood ash, wood waste, and other solids removed from liquid wastes, recycle pond, retention pond, power plant pond, oil/water separators, catch basins, or other sources shall be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23, CCR, and approved by the Executive Officer.
- ii. Any proposed change in sludge or ash and wood waste use or disposal practice, shall be reported to the Executive Officer at least 90 days in advance of the change.

- b. **Storm Water Benchmark Values.** This Order includes the following storm water benchmark values:

**Table 7. Storm Water Benchmark Values**

Parameter	Benchmark Value
Chemical Oxygen Demand (mg/L)	120
Electrical Conductivity (µmhos/cm)	500 <sup>1</sup>
Iron, Total Recoverable (µg/L)	1000

<sup>1</sup> Annual average for a wet season, i.e., 1 July through 30 June.

The benchmark levels are not effluent limitations on the storm water discharge. The benchmark values are the pollutant concentrations above which the Central Valley Water Board has determined represent a level of concern and require further evaluation of the Discharger's SWPPP as it relates to controlling the discharge of the subject pollutant from the Facility.

Exceedance of a benchmark value requires the Discharger to conduct a BMP Improvement Plan in accordance with section VI.C.2. of this Order. If the benchmark

value continues to be exceeded after implementation of initial BMP improvements, the Discharger shall demonstrate that no further pollutant reduction is technologically available and economically achievable in light of best industry practice to meet the benchmark value.

## **7. Compliance Schedules – Not Applicable**

## **VII. COMPLIANCE DETERMINATION**

### **A. Receiving Water Limitations - Compliance Determination.**

Discharger shall be deemed out of compliance with a receiving water limitation, if the concentration of the pollutant in the downstream receiving water monitoring sample is greater than the applicable criteria and the exceedance can be attributed to the Facility storm water discharge and not upstream receiving water conditions.

### **B. Receiving Water Limitations - Chronic Criteria Applicability.**

When determining compliance with a receiving water limitation that is based on a chronic (4-day) aquatic-life criterion, the duration of the storm water discharge event shall be taken into consideration in determining the applicability of the chronic criteria for compliance determination purposes. For example, if the storm water discharge was intermittent and/or short-term (e.g., less than 4 days) the chronic criteria may not be applicable to the event.



## ATTACHMENT A – DEFINITIONS

### Arithmetic Mean ( $\mu$ )

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean =  $\mu = \Sigma x / n$                       where:  $\Sigma x$  is the sum of the measured ambient water concentrations, and  $n$  is the number of samples.

### Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

### Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

### Best Management Practices (BMPs)

Those control measures taken to mitigate changes to both quantity and quality of runoff caused through changes to land use. Specifically, those measures that are required to reduce or prevent pollutants in industrial storm water discharges in compliance with BAT/BCT.

### Bioaccumulative

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

### Carcinogenic

Pollutants are substances that are known to cause cancer in living organisms.

### Coefficient of Variation (CV)

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

### Daily Discharge

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

**Detected, but Not Quantified (DNQ)**

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

**Dilution Credit**

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

**Effluent Concentration Allowance (ECA)**

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

**Enclosed Bays**

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

**Estimated Chemical Concentration**

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

**Estuaries**

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

**Inland Surface Waters**

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

**Instantaneous Maximum Effluent Limitation**

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation**

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

### **Maximum Daily Effluent Limitation (MDEL)**

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

### **Median**

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements ( $n$ ) is odd, then the median =  $X_{(n+1)/2}$ . If  $n$  is even, then the median =  $(X_{n/2} + X_{(n/2)+1})/2$  (i.e., the midpoint between the  $n/2$  and  $n/2+1$ ).

### **Method Detection Limit (MDL)**

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

### **Minimum Level (ML)**

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

### **Mixing Zone**

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

### **Not Detected (ND)**

Sample results which are less than the laboratory's MDL.

### **Ocean Waters**

The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

### **Persistent Pollutants**

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

### **Pollutant Minimization Program (PMP)**

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Valley Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

### **Pollution Prevention**

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or Central Valley Water Board.

### **Satellite Collection System**

The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

### **Source of Drinking Water**

Any water designated as municipal or domestic supply (MUN) in a Central Valley Water Board Basin Plan.

### **Standard Deviation ( $\sigma$ )**

Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

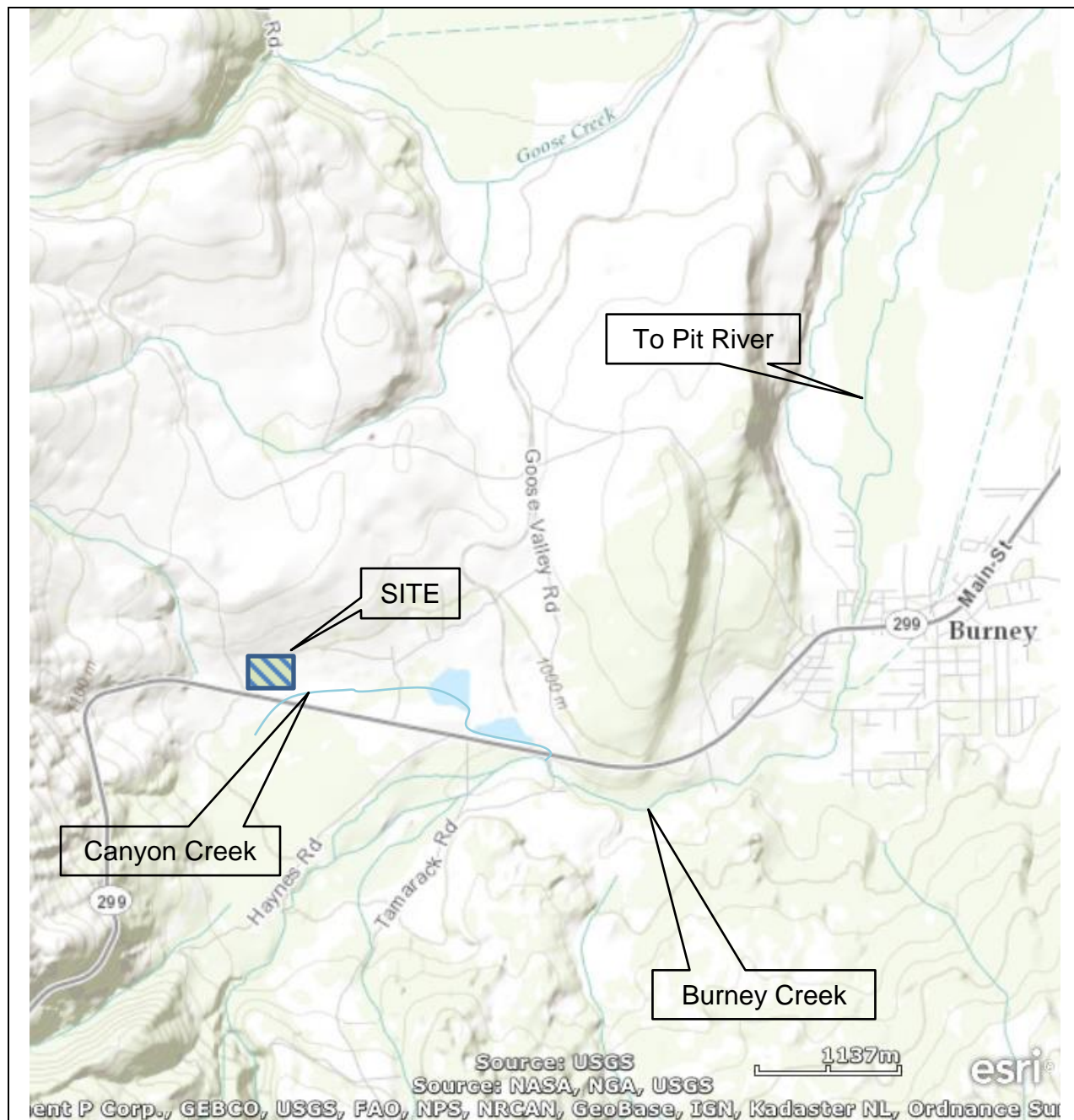
where:

- x is the observed value;
- $\mu$  is the arithmetic mean of the observed values; and
- n is the number of samples.

### **Toxicity Reduction Evaluation (TRE)**

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

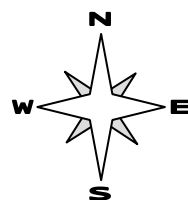
# ATTACHMENT B – MAP

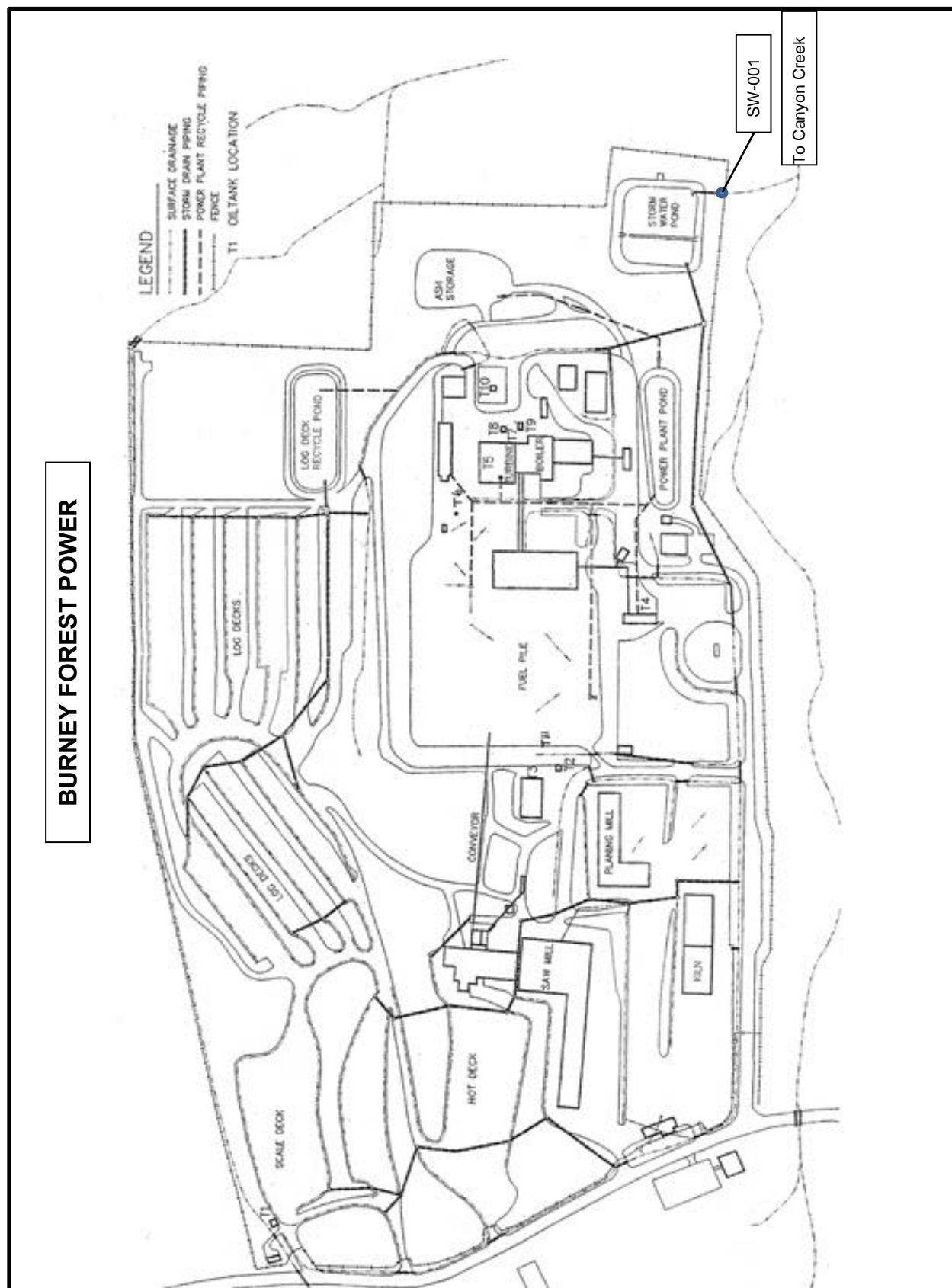


DISCHARGER:  
 BURNEY FOREST PRODUCTS, A JOINT VENTURE,  
 SHASTA GREEN, INC., AND FRUIT GROWERS SUPPLY COMPANY

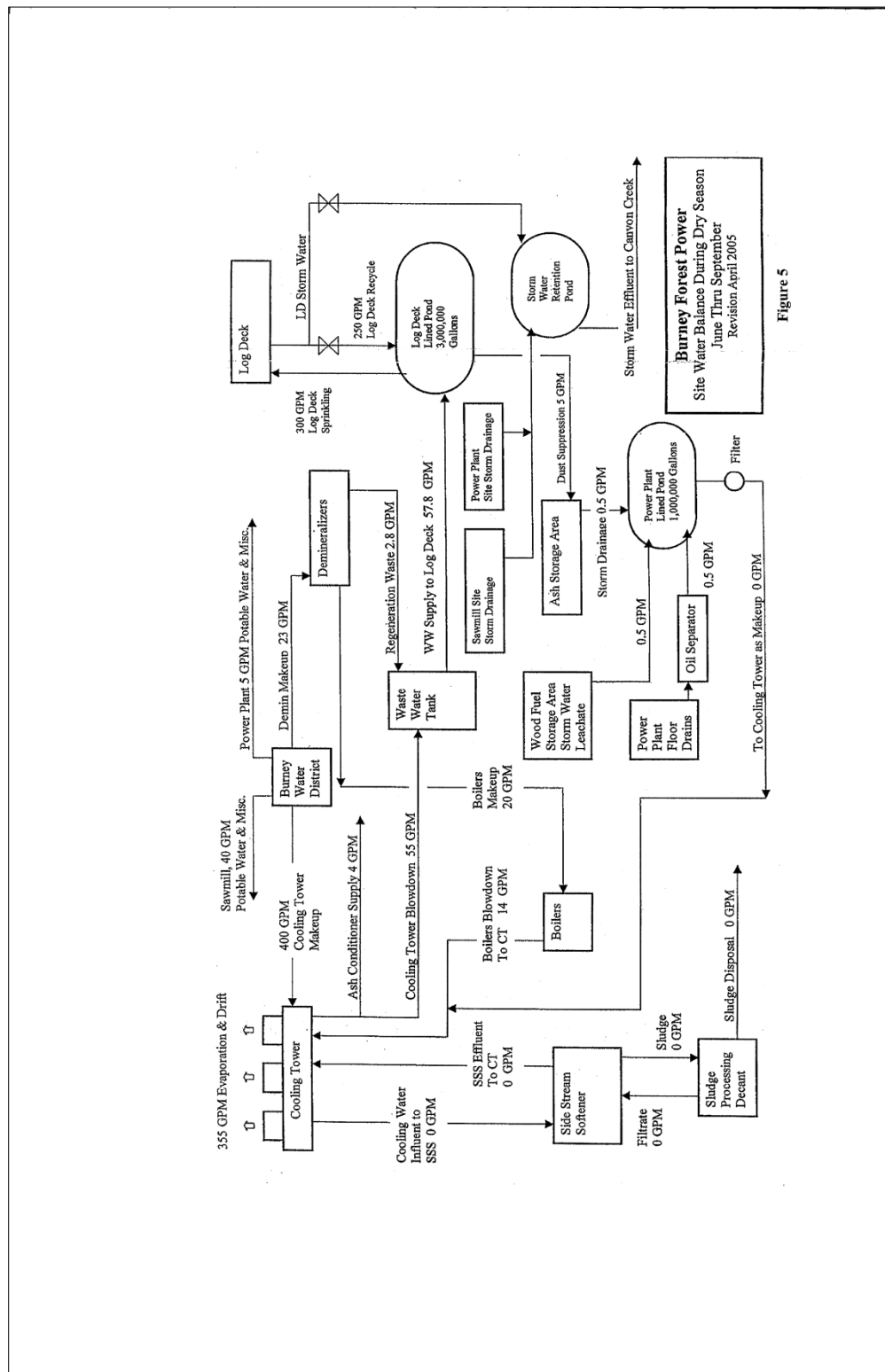
FACILITY:  
 BURNEY FOREST POWER

SHASTA COUNTY





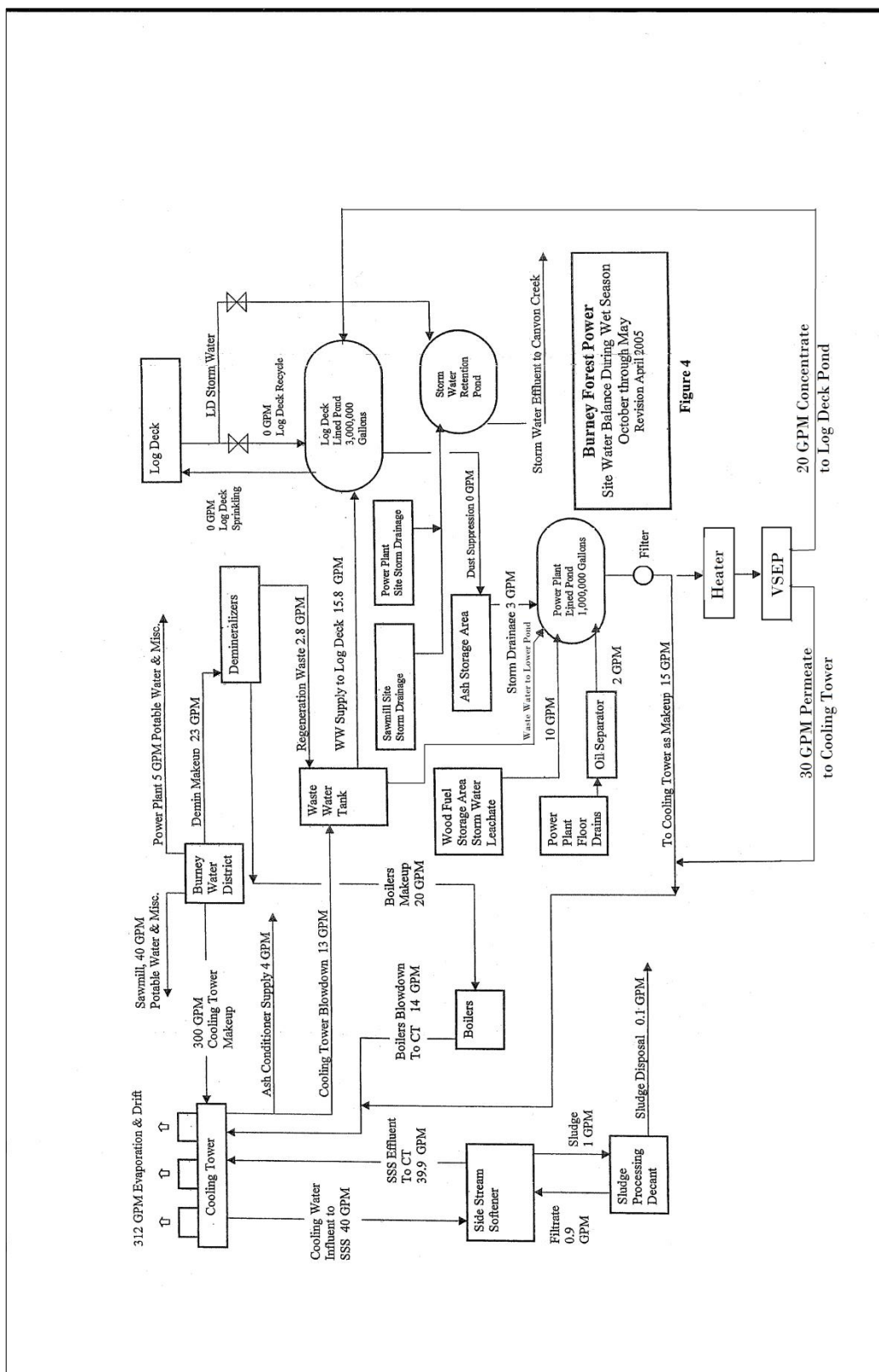
### Figure 1. June through September Flows



**Figure 5**



Figure 2. October through May Flows





## **ATTACHMENT D – STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS – PERMIT COMPLIANCE**

#### **A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

#### **B. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

#### **C. Duty to Mitigate**

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

#### **D. Proper Operation and Maintenance**

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

#### **E. Property Rights**

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

#### **F. Inspection and Entry**

The Discharger shall allow the Central Valley Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

## **G. Bypass**

1. Definitions
  - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
  - c. The Discharger submitted notice to the Central Valley Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

**H. Upset**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
  - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

**II. STANDARD PROVISIONS – PERMIT ACTION**

**A. General**

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

**B. Duty to Reapply**

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

**C. Transfers**

This Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

**III. STANDARD PROVISIONS – MONITORING**

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B.** Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 or, in the case of sludge use or disposal, approved under 40 C.F.R. part 136 unless otherwise specified in 40 C.F.R. part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

**IV. STANDARD PROVISIONS – RECORDS**

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)
- B.** Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
  - 2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
  - 3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
  - 4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
  - 5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
  - 6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)
- C.** Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
  - 1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

## **V. STANDARD PROVISIONS – REPORTING**

### **A. Duty to Provide Information**

The Discharger shall furnish to the Central Valley Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Valley Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Valley Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

### **B. Signatory and Certification Requirements**

1. All applications, reports, or information submitted to the Central Valley Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)
3. All reports required by this Order and other information requested by the Central Valley Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
  - c. The written authorization is submitted to the Central Valley Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Valley Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

#### **C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Valley Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

#### **D. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

#### **E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Central Valley Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

**F. Planned Changes**

The Discharger shall give notice to the Central Valley Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

**G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Central Valley Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

**H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

**I. Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Valley Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

## **VI. STANDARD PROVISIONS – ENFORCEMENT**

- A.** The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

## **VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS**

### **A. Non-Municipal Facilities**

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Valley Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
  - a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
  - b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
  - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
  - d. The level established by the Central Valley Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):
  - a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));
  - b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
  - d. The level established by the Central Valley Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)



## ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)**

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

### **I. GENERAL MONITORING PROVISIONS**

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.
- B.** Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- C.** Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory certified for such analyses by the Department of Public Health (DPH). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event a certified laboratory is not available to the Discharger for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine, such analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine must be kept onsite in the treatment facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Central Valley Water Board.
- D.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E.** Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.
- F.** Laboratories analyzing monitoring samples shall be certified by the Department of Public Health (DPH), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

- G. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.
- H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this Monitoring and Reporting Program.
- I. The results of all monitoring required by this Order shall be reported to the Central Valley Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

## II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table E-1. Monitoring Station Locations**

Discharge Point	Monitoring Location	Monitoring Location Description
SW-001 (Storm Water)	EFF-001	Outfall from storm water retention pond. Latitude 40° 52' 35" N, Longitude 121° 43' 00" W
PND-001 (Log Deck Recycle Pond)	LND-001	3 MG Log Deck Recycle Pond. At a location where a representative sample of the log deck recycle pond can be collected.
PND-002 (Power Plant Pond)	LND-002	1 MG Power Plant Pond. At a location where a representative sample of the power plant pond water can be collected.
PND-003 (Storm Water Retention Pond)	LND-003	Storm Water Retention Pond. At a location where a representative sample of the storm water in the storm water retention pond can be collected.
Upstream Receiving Water	RSW-001	Canyon Creek, 50 feet upstream of confluence of SW-001 and Canyon Creek.
Downstream Receiving Water	RSW-002	Canyon Creek, 50 feet downstream of confluence of SW-001 and Canyon Creek.

The north latitude and west longitude information in Table 1 are approximate for administrative purposes.

## III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

## IV. EFFLUENT MONITORING REQUIREMENTS

### A. Monitoring Location EFF-001

1. The Discharger shall monitor the discharge (SW-001) from the storm water retention pond (PND-003) at Monitoring Location EFF-001 as follows:

**Table E-2. Effluent (Storm Water) Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>1,7</sup>	Required Analytical Test Method
Flow	gallons/day	Calculation	1/Day <sup>5</sup>	--
Dissolved Oxygen	mg/L	Grab	1/Week <sup>2</sup>	6
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week <sup>2</sup>	6
pH	Standard Units	Grab	1/Week <sup>2</sup>	6
Settleable Solids	ml/L	Grab	1/Week <sup>2</sup>	6
Temperature	°C	Grab	1/Week <sup>2</sup>	6
Turbidity	NTU	Grab	1/Week <sup>2</sup>	6
Chemical Oxygen Demand (COD)	mg/L	Grab	1/Month <sup>2</sup>	6
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab	1/Month <sup>2,4</sup>	6
Tannins & Lignins	mg/L	Grab	1/Month <sup>2</sup>	6
Total Dissolved Solids	mg/L	Grab	1/Month <sup>2</sup>	6
Total Suspended Solids	mg/L	Grab	1/Month <sup>2</sup>	6
Acute Toxicity	% Survival	Grab	2/Year <sup>3</sup>	See Section V. below
Oil & Grease	mg/L	Grab	2/Year <sup>3</sup>	6
<b>Metals</b>				
Copper, Dissolved	µg/L	Grab	1/Month <sup>2</sup>	6
Iron, Total Recoverable	mg/L	Grab	1/Month <sup>2</sup>	6
Lead, Dissolved	µg/L	Grab	1/Month <sup>2</sup>	6
Zinc, Dissolved	µg/L	Grab	1/Month <sup>2</sup>	6
Aluminum, Total Recoverable	µg/L	Grab	2/Year <sup>3</sup>	6
Cadmium, Dissolved	µg/L	Grab	2/Year <sup>3</sup>	6
Manganese, Total Recoverable	mg/L	Grab	2/Year <sup>3</sup>	6
Silver, Dissolved	µg/L	Grab	2/Year <sup>3</sup>	6
<b>Other</b>				
Storm Water Characterization Study	--	See Attachment I	See Attachment I	--

<sup>1</sup> Samples shall be collected during the first 24-hours from the first discharge after the dry season and according to sampling frequency thereafter.

<sup>2</sup> Samples shall be collected during continuous discharge. If the discharge is intermittent rather than continuous, then the first day of each intermittent discharge shall be monitored, but not more than twice the frequency noted.

<sup>3</sup> Samples shall be collected during the first 24-hours of the first discharge after the dry season and once thereafter during the wet season.

<sup>4</sup> Hardness samples shall be collected concurrently with metals samples.

<sup>5</sup> Flow monitoring not required during non-business days.

<sup>6</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

<sup>7</sup> First discharge event sampling may be limited to weekdays due to staffing and laboratory holding-time needs, and therefore, at times, may exceed the 24-hour sampling requirement. First discharge events occurring on the weekend must be sampled no later than the following business day (e.g., Monday).

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

**A. Acute Toxicity Testing.** The Discharger shall conduct acute toxicity testing to determine whether the effluent (storm water discharge) is contributing acute toxicity to the receiving water. The Discharger shall meet the following acute toxicity testing requirements:

1. Monitoring Frequency – The Discharger shall perform semi-annual (twice per year) acute toxicity testing. Samples shall be collected during the first hour (during daylight hours) of the first discharge after the dry season and once thereafter during the wet season. Logistical constraints related to the “first discharge” event (e.g., laboratory notification requirements, sample hold time, etc.) shall be taken into consideration.
2. Sample Types – The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent (storm water discharge) samples shall be taken at the effluent (storm water) monitoring location EFF-001.
3. Test Species – Test species shall be Rainbow trout (*Oncorhynchus mykiss*).
4. Methods – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.
5. Test Failure – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall review the SWPPP, implement any necessary BMP improvements, and re-test as soon as possible, not to exceed 7-days following notification of test failure.

**B. WET Testing Notification Requirements.** The Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the acute toxicity effluent limitation.

**C. WET Testing Reporting Requirements.** All toxicity test reports shall include the contracting laboratory’s complete report provided to the Discharger and shall be in accordance with the appropriate “Report Preparation and Test Review” sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:

1. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the semi-annual discharger self-monitoring reports and reported as percent survival.
2. **Quality Assurance (QA).** The Discharger must provide the following information for QA purposes:
  - a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.
  - b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.
  - c. Any information on deviations or problems encountered and how they were dealt with.

## VI. LAND DISCHARGE MONITORING REQUIREMENTS

### A. Monitoring Locations LND-001 and LND-002 (Log Deck Recycle Pond and Power Plant Pond)

- The Discharger shall monitor the log deck recycle pond (PND-001) and the power plant pond (PND-002) at monitoring locations LND-001, and LND-002, respectively, as follows:

**Table E-3. Log Deck Recycle Pond and Power Plant Pond**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Freeboard	Feet	Visual	1/Week	--
pH	Standard Units	Grab	1/Month	<sup>1</sup>
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	<sup>1</sup>
Chemical Oxygen Demand	mg/L	Grab	1/Quarter	<sup>1</sup>
Chloride	mg/L	Grab	1/Quarter	<sup>1</sup>
Sulfate	mg/L	Grab	1/Quarter	<sup>1</sup>
Total Dissolved Solids	mg/L	Grab	1/Quarter	<sup>1</sup>
Iron, Total	µg/L	Grab	1/Quarter	<sup>1</sup>
Manganese, Total	µg/L	Grab	1/Quarter	<sup>1</sup>

<sup>1</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

### B. Monitoring Location LND-003 (Storm Water Retention Pond)

- The Discharger shall monitor the Storm Water Retention Pond (PND-003) at monitoring location LND-003 as follows:

**Table E-4. Storm Water Retention Pond**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Freeboard	Feet	Visual	1/Week	--
pH	Standard Units	Grab	1/Month	<sup>1</sup>
Electrical Conductivity @ 25°C <sup>1</sup>	µmhos/cm	Grab	1/Month	<sup>1</sup>

<sup>1</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

## VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

## VIII. RECEIVING WATER MONITORING REQUIREMENTS

### A. Monitoring Locations RSW-001 and RSW-002

- The Discharger shall monitor Canyon Creek, during discharge from SW-001, at Monitoring Locations RSW-001 and RSW-002 concurrently, as follows:

**Table E-5. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>4,5</sup>	Required Analytical Test Method
Flow	cfs	Calculation	1/Week	1
Dissolved Oxygen	mg/L	Grab	1/Week	1
Electrical Conductivity@ 25°C	µmhos/cm	Grab	1/Week	1
pH	s.u.	Grab	1/Week	1
Turbidity	NTU	Grab	1/Week	
Temperature	°C	Grab	1/Week	1
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab	1/Month <sup>2</sup>	1
<b>Metals</b>				
Copper, Dissolved	µg/L	Grab	1/Month	1
Iron, Total Recoverable	µg/L	Grab	1/Month	1
Lead, Dissolved	µg/L	Grab	1/Month	1
Zinc, Dissolved	µg/L	Grab	1/Month	1
Aluminum, Total Recoverable	µg/L	Grab	2/Year <sup>3</sup>	1
Cadmium, Dissolved	µg/L	Grab	2/Year <sup>3</sup>	1
Manganese, Total Recoverable	µg/L	Grab	2/Year <sup>3</sup>	1
Silver, Dissolved	µg/L	Grab	2/Year <sup>3</sup>	1

- <sup>1</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- <sup>2</sup> Hardness samples shall be collected concurrently with metals samples.
- <sup>3</sup> Samples shall be concurrent with 2/year storm water sampling requirements and shall be collected during the first 24-hours of the first discharge after the dry season and once thereafter during the wet season.
- <sup>4</sup> Sampling shall occur during periods of discharge from the storm water retention basin when a hydraulic connectivity between the storm water retention basin discharge and the receiving water exists.
- <sup>5</sup> First discharge event sampling may be limited to weekdays due to staffing and laboratory holding-time needs, and therefore, at times, may exceed the 24-hour sampling requirement. First discharge events occurring on the weekend must be sampled no later than the following business day (e.g., Monday).

2. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions through the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

- a. Upstream Flow
- b. Visible films, sheens or coatings
- c. Floating or suspended matter
- d. Bottom deposits
- e. Odor
- f. Aquatic life
- g. Discoloration
- h. Fungi, slimes, or objectionable growths

Notes on receiving water conditions shall be summarized in the monthly monitoring report.

## IX. OTHER MONITORING REQUIREMENTS

### A. Ash Monitoring and Cooling Tower Sludge

1. The Discharger shall keep a log describing the quantities of fly ash and bottom ash generated, stored, and removed from the facility. The log shall identify the disposal location or soil amendment application area. For soil amendment areas, the volume of ash applied and acreage shall be included. The frequency of log entries is discretionary; however, the log should be complete enough to serve as a basis for an annual report. A representative composite sample of the fly ash shall be tested annually for total and dissolved constituents. Dissolved constituents shall be obtained using the Waste Extraction Test (WET) described in the CCR, Title 22, Division 4.5, Chapter 11, Article 3. Note that deionized water is not an acceptable extract. By **1 February** of each year, the analytical results and the above information shall be summarized and submitted in a report.

**Table E-6. Fly Ash Monitoring Requirements**

Parameter	Units	Sample TYPE	Minimum Sampling Frequency
pH	Units	Composite	Annually
Electrical Conductivity	umhos/cm	Composite	Annually
Total Dissolved Solids	mg/L	Composite	Annually
Aluminum	mg/kg; µg/L	Composite	Annually
Barium	mg/kg; µg/L	Composite	Annually
Boron	mg/kg; µg/L	Composite	Annually
Cobalt	mg/kg; µg/L	Composite	Annually
Iron	mg/kg; µg/L	Composite	Annually
Manganese	mg/kg; µg/L	Composite	Annually
Molybdenum	mg/kg; µg/L	Composite	Annually
Vanadium	mg/kg; µg/L	Composite	Annually
General Minerals <sup>1</sup>	mg/kg; mg/L	Composite	Annually
Priority Pollutant Metals <sup>2</sup>	mg/kg; µg/L	Composite	Annually
2,3,7,8-TCDD	pg/g; pg/L	Composite	Annually

<sup>1</sup>. General minerals include: bicarbonate, carbonate, calcium, magnesium, nitrate, potassium, silica, sodium, and sulfate.

<sup>2</sup>. Antimony, arsenic, beryllium, cadmium, chromium III, chromium VI, copper, cyanide, lead, mercury, nickel, selenium, silver, thallium, and zinc.

### B. Cooling Tower Sludge

1. The Discharger shall submit an annual cooling tower sludge report by **1 February** of each year, describing the quantity of solids generated plus the handling and disposal activities for this material. A log shall be kept of the quantities generated and disposal activities. The frequency of entries is discretionary; however, the log shall be complete enough to serve as a basis for the annual report. Upon removal of the sludge, the Discharger shall submit characterization of sludge quality; including percent solids and the most recent quantitative results of chemical analysis for the priority pollutants listed



in 40 CFR 122 Appendix D, Tables II and III (excluding total phenols). Suggested methods for analysis of sludge are provided in USEPA publications titled "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods" and "Test Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater." Sampling records shall be retained for a minimum of **5 years**.

### C. Precipitation Monitoring

3. The daily precipitation (24-hour period cumulative) at the Facility shall be monitored as follows:

Parameter	Units	Sample Type	Sampling Frequency
Precipitation	Inches (+/- 0.1)	Visual (Cumulative)	1/Day

Upon approval by the Executive Officer, precipitation data may be obtained from monitoring station(s) not located at the Facility, as long as the alternate precipitation data is representative of the rainfall experienced at the Facility.

## X. REPORTING REQUIREMENTS

### A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
3. **Compliance Time Schedules** – For compliance time schedules included in the Order, the Discharger shall submit to the Regional Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the compliance time schedule.
4. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "*Emergency Planning and Community Right to Know Act*" of 1986.

### B. Self-Monitoring Reports (SMR's)

1. The Discharger shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit **monthly, quarterly,**

**semiannual, and annual** SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMR's are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table E-7. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	First day of the calendar month following the permit effective date of the permit effective date if that date is if first day of the month	All	Submit with monthly SMR
1/Hour	First day of the calendar month following the permit effective date of the permit effective date if that date is if first day of the month	Hourly	Submit with monthly SMR
1/Day	First day of the calendar month following the permit effective date of the permit effective date if that date is if first day of the month	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
1/Month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	Submit with monthly SMR
1/Quarter	Closest of January 1, April 1, July 1, or October 1 following permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Semi-annually	Closest of January 1 or July 1 following permit effective date	January 1 through June 30 July 1 through December 31	August 1 February 1
1/Year	January 1 following permit effective date	January 1 through December 31	February 1
Bi-annually	January 1 following permit effective date	1 <sup>st</sup> two years of permit, and second two years of permit	February 1

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current laboratory's Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
  - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. **Multiple Sample Data.** When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. **Reporting Requirements.** The Discharger shall submit SMR's in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDR's; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions.

Identified violations must include a description of the requirement that was violated and a description of the violation.

7. **Calculation Requirements.** The Discharger shall submit in the SMR's calculations and reports in accordance with the following requirements:
- Annual Average Limitations.** For constituents with effluent limitations specified as "annual average" (e.g., aluminum, electrical conductivity, iron, and manganese) the Discharger shall report the annual average in the June SMR. The annual average shall be calculated as the average of the samples gathered for the calendar year.
  - Dissolved Oxygen Receiving Water Limitations.** The Discharger shall calculate and report monthly in the self-monitoring report: i) the dissolved oxygen concentration, ii) the percent of saturation in the main water mass, and iii) the 95th percentile dissolved oxygen concentration.
  - Turbidity Receiving Water Limitations.** The Discharger shall calculate and report the turbidity increase in the receiving water applicable to the natural turbidity condition specified in Receiving Water Limitations Section V.A. of the Order.
  - Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature increase in the receiving water based on the difference in temperature at RSW-001 and RSW-002.

**C. Discharge Monitoring Reports (DMR's)**

- DMRs are only required for facilities designated as major dischargers. The Discharger is a minor discharger. At any time during the term of this permit, the State Water Board or Central Valley Water Board may notify the Discharger to electronically submit DMR's.

**D. Other Reports**

- The Discharger shall report the results of any special studies, acute toxicity testing, and storm water pollution prevention plan required by Special Provisions – VI.C of this Order.
- Within **60 days** of permit adoption, the Discharger shall submit a report outlining reporting levels (RLs), method detection limits, and analytical methods for approval.
- Storm Water Characterization Study.** A storm water monitoring study is required to ensure adequate information is available for the next permit renewal. During the third and fourth year of this permit term, the Discharger shall conduct annual monitoring of the storm water effluent at SW-001 for all priority pollutants and other constituents of concern as described in Attachment I. The annual monitoring shall consist of sample collection during the first hour (during daylight hours) of the first discharge of storm water after the dry season.
- Annual Operations Report.** By **1 February** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:
  - The names, certificate grades, and general responsibilities of all persons employed at the Facility.
  - The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.

- c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
- e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

## ATTACHMENT F – FACT SHEET

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## ATTACHMENT F – FACT SHEET

As described in section I, the Central Valley Water Board incorporates this Fact Sheet as findings of the Central Valley Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

**Table F-1. Facility Information**

WDID	5A452030002
Discharger	Burney Forest Products, a joint venture, Shasta Green, Inc., and Fruit Growers Supply Company
Name of Facility	Burney Forest Power
Facility Address	35586-B, Highway 299 E
	Burney, CA 96013
	Shasta County
Facility Contact, Title and Phone	Andy Duncan, Plant Manager, NAES (530) 335-5023 Tom Franklin, Vice President, Shasta Green, Inc. (530) 335-4924
Authorized Person to Sign and Submit Reports	Andy Duncan, Plant Manager, NAES, (530) 335-5023 Tom Franklin, Vice President, Shasta Green, Inc. (530) 335-4924
Mailing Address	35586-B Highway 299 E, Burney, CA 96013
Billing Address	35586-B Highway 299 E, Burney, CA 96013
Type of Facility	Electric Services (SIC 4911) Sawmill and Planing Mill (SIC 2421)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	Pit River Hydrologic Unit (526.00)
Receiving Water	Canyon Creek
Receiving Water Type	Inland Surface Water



- A.** Burney Forest Products, a joint venture, dba Burney Forest Power (hereinafter Facility), owns and operates a biomass fired cogeneration power plant on property leased from Fruit Growers Supply Company (Property Owner). Burney Forest Power subleases a portion of the Facility site to Shasta Green, Inc., who owns and operates a sawmill/planing mill. The cogeneration power plant and sawmill/planing mill are hereinafter designated as the Facility. Currently NAES provides operation and maintenance services for the cogeneration power plant under contract with the owners, however; the contract service provider can change in the future. Burney Forest Products, Shasta Green, Inc., and Fruit Growers Supply Company (collectively designated as the Discharger).

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B.** The Facility discharges storm water to Canyon Creek, a water of the United States, and tributary to Burney Creek within the Pit River Hydrologic Unit (526.00). The Discharger was previously regulated by Order No. R5-2007-0061 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0082490 adopted on 21 June 2007 and expired on 1 June 2012. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of settled storm water that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

- C.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDR's and NPDES permit on 28 November 2011. The application was deemed complete on 9 December 2011.

## **II. FACILITY DESCRIPTION**

The Facility sawmill operation consists of log scaling, wet and dry log storage, mechanical log debarking, sawmill, planing mill, kilns, lumber storage, aboveground petroleum storage areas, equipment fueling and maintenance, paved and unpaved roadways, and an office. Wastes include: runoff from log storage areas, wood waste, saw cooling water, kiln condensate, waste petroleum products, and storm water runoff. Wood waste from the sawmill is delivered to the cogeneration power plant by conveyor.

The cogeneration plant component of the Facility consists of a wood fuel storage area, two biomass fired (wood fueled) boilers, steam turbine, ammonia storage and delivery system, aboveground petroleum storage, water treatment system, cooling tower, ash storage, and paved and unpaved roadways. The primary fuel source for the cogeneration plant is wood waste from the sawmill and wood waste from off-site sources. Natural gas is used as a supplementary fuel for startup and flame stabilization for the cogeneration plant's boilers. The Discharger has submitted a list of chemicals used to treat the cogeneration plant's water and to maintain the boiler and cooling tower. The cogeneration plant's wastes include: fuel storage pile leachate, demineralizer regeneration waste water, cooling tower blow down, boiler blow down, cooling tower treatment sludge, fly ash, bottom ash, used petroleum products, sewage, and storm water runoff. The bottom ash is used onsite for roads; the fly ash is transported to private agricultural lands for use as soil

amendment or to a manufacturer for reuse. The cooling tower sludge is filtered and the cake disposed of at a Class III landfill.

The Discharger has three wastewater management units, a 3-million-gallon lined log deck recycle pond, a 1-million-gallon lined power plant pond, and a 3.6 acre-foot unlined storm water retention pond. The log deck recycle pond and the power plant pond are both single-lined with a 60-mil HDPE geosynthetic membrane liner. The synthetically-lined ponds do not meet the current construction requirements specified in Title 27 of the California Code of Regulations. The log deck recycle pond is underlain by a four-inch perforated PVC drain pipe, which historically discharged a short distance from the pond to an internal surface drainage ditch. However, the underdrain system is currently not functioning properly and drainage from the four-inch drain pipe has ceased. Domestic sewage disposal is to a septic tank leachfield system.

The log deck recycle pond receives continuous wastewater discharges from sprinkling logs during the dry season and the initial flush of storm water runoff from the log yard at the start of the wet season. Subsequent storm water runoff from the log deck is routed around the log deck recycle pond and discharged to the storm water retention pond. In addition, the cogeneration plant discharges wastewater from demineralizer regeneration and cooling tower blow down to the log deck recycle pond. The log deck recycle pond water is used to sprinkle logs located on the log deck. The log deck recycle pond water is also used to sprinkle ash and for fugitive dust and fire control. Discharges to surface waters from the log deck recycle pond are prohibited.

The power plant pond receives wastewater from the cogeneration plant floor drains, leachate from the fuel storage pile, and storm water runoff from the wood fuel storage pile. In case of emergency, wastewater can be pumped from the power plant pond to the log deck recycle pond. Wastewater from the log deck recycle pond can also be discharged to the power plant pond. If the power plant pond or log deck-recycle pond reach capacity, the wastewater is trucked off-site to the Burney Wastewater Treatment Plant for disposal. Discharges to surface waters from the power plant pond are prohibited.

The storm water retention pond receives storm water runoff from both the sawmill and cogeneration facilities, which may contain: non-contact saw cooling water, kiln condensate, wood waste and sediment. When the storm water retention pond storage capacity is reached, the storm water discharges to Canyon Creek (Discharge 001), a tributary of Burney Creek.

#### **A. Description of Storm Water Treatment and Controls**

Storm water at the Facility is captured through a series of ditches and conveyed by gravity to the storm water retention pond. The storm water retention pond has a capacity of 1.173 million gallons and is divided into two sections with a rock barrier and an invert siphon from the smaller section to the larger main settling pond. The initial smaller section of the storm water retention pond retains bark and other floatable materials. The main storm water retention pond is designed with two discharge weirs, a floating weir and a stationary weir, both discharging at Discharge Point SW-001. During storm events, storm water enters the retention pond until sufficient settling has occurred with discharge through the floating weir only. The stationary weir is a safety discharge, which protects the storm water retention pond from overflowing its containment.

When the wet season begins, the log deck sprinklers are shut off. Prior to allowing storm water runoff from the paved log deck area to enter the storm water retention basin, storm water runoff from a minimum of 2 inches of rainfall is directed to the log deck recycle pond. The practice of collecting the first 2 inches of log deck rainfall runoff in the log deck recycle

pond is considered a BMP to reduce pollutants in the storm water discharge to surface water; the 2 inches of rainfall commingled with residual pond water on the paved log decks is referred to as the “first flush.” The first flush collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with pond water during the wet season. After capturing first flush from the paved log decks, the control valve to the log-deck recycle pond is closed and storm water from the log decks is screened and directed to the storm water retention pond. Storm water runoff from the sawmill and cogeneration plant is also directed to the storm water retention pond, except for the leachate and storm water from the wood fuel, petroleum storage, and ash storage areas, which is directed to the power plant pond.

#### B. Discharge Points and Receiving Waters

1. The Facility is located in Section 23, T35N, R2E, MDB&M, as shown in Attachment B, a part of this Order.
2. Settled storm water is discharged at Discharge Point SW-001 to Canyon Creek, a water of the United States at a point latitude 40° 52' 35" N and longitude 121° 43' 00" W, within the Pit River Hydrologic Unit (526.00).
3. Log deck sprinkler water is recycled from and discharged to the Log Deck Recycle Pond at Land Discharge Point LND-001 (Log Deck Recycle Pond). Power plant process water is recycled from and discharged to the Power Plant Pond at Land Discharge Point LND-002 (Power Plant Pond).

#### C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order for storm water discharges from Discharge Point SW-001 (Monitoring Location EFF-001) (formerly known as M-001) and representative monitoring data from the term of the previous Order are as follows:

**Table F-2. Historic Storm Water Effluent Limitations and Monitoring Data**

Parameter	Units	Storm Water Effluent Limit				Jan. 2008 –Dec. 2012	
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Highest Average Monthly	Highest Max Daily
Settleable Solids	mL/L	0.1	0.2	--	--	--	0.1
pH	s.u.	--	--	6.0	9.0	6.8 – 7.95 [minimum & max]	

In addition to the parameters with effluent limitations, the Facility storm water was monitored for additional parameters of concern. The monitoring schedule and results of the storm water monitoring are presented below. Pollutant storm water benchmark values have been included in the table for reference.

**Table F-3. Historic Storm Water Discharge Monitoring Data**

Parameter	Units	Sampling Frequency	(Min. to Max.) Jan. 2008 –Dec. 2012	Storm Water Benchmark <sup>2</sup>
Turbidity	NTU	1/Week	1.4 – 95.1	--
COD	mg/L	1/Month	<3.0 – 137	120 <sup>4</sup>
Electrical Conductivity	µmhos/cm	1/Month	74 - 834	--
Tannins & Lignins	mg/L	1/Month	0.29 DNQ – 3.93	--
Total Dissolved Solids	mg/L	1/Month	36.4 – 411.2	--
Total Suspended Solids	mg/L	1/Month	<2 – 35.0	100 <sup>4</sup>
Cadmium, Dissolved	µg/L	1/Month	<0.004 (all ND)	0.83 <sup>1,3</sup>
Copper, Dissolved	µg/L	1/Month	<0.1 – 4.7	5.7 <sup>1,3</sup>
Iron, Total Recoverable	µg/L	1/Month	140 - 3780	1000 <sup>1,3</sup>
Lead, Dissolved	µg/L	1/Month	<0.003 – 0.145	24 <sup>3</sup>
Silver, Dissolved	µg/L	1/Month	<0.01 (all Non Detect)	0.71 <sup>1,3</sup>
Zinc, Dissolved	µg/L	1/Month	0.24 – 10.8	54 <sup>1,3</sup>
Hardness (as CaCO <sub>3</sub> )	mg/L	2/Year	39 - 138	--
Oil & Grease	mg/L	2/Year	<1.4 – 1.5 DNQ	15 <sup>4</sup>
Acute Toxicity	% Survival	Once every 2 Years	100% Survival	--

<sup>1</sup> Total Recoverable.

<sup>2</sup> The benchmark concentrations are not effluent limitations. These values are merely levels which may be used to determine if a storm water discharge from any given facility merits further monitoring to ensure that the facility has been successful in implementing the SWPPP.

<sup>3</sup> USEPA freshwater aquatic life acute dissolved criteria; calculated using a hardness value of 40 mg/L CaCO<sub>3</sub>. Iron criteria is not hardness-dependent.

<sup>4</sup> Storm water benchmark from USEPA Multi-Sector General Permit for Industrial Activities.

The previous Order required upstream and downstream receiving water monitoring to ensure receiving water limitations were met. The results of the receiving water monitoring are as follows:

**Table F-4. Historic Receiving Water Monitoring Data**

Parameter	Units	(Minimum to Maximum) Jan. 2008 –Dec. 2012	
		Upstream (RSW-001)	Downstream (RSW-002)
Turbidity	NTU	1.3 – 35	1.3 – 28.2
Electrical Conductivity	µmhos/cm	23 - 245	25 - 245
Tannins & Lignins	mg/L	0.21 DNQ – 1.75	0.21 DNQ – 1.75
Total Dissolved Solids	mg/L	20.1 – 58.2	23.9 – 71.3
Total Suspended Solids	mg/L	<2 - 62	<2 – 24
pH	s.u.	7.10 – 7.93	7.05 – 7.95
Cadmium, Dissolved	µg/L	<0.02 (all ND)	<0.02 (all ND)
Copper, Dissolved	µg/L	0.38 – 2.5	0.36 – 2.71
Iron, Total Recoverable	µg/L	97 - 377	125 - 809
Lead, Dissolved	µg/L	<0.003 – 0.068	<0.003 – 0.076
Silver, Dissolved	µg/L	<0.02 (all ND)	<0.01 (all ND)

Parameter	Units	(Minimum to Maximum) Jan. 2008 –Dec. 2012	
		Upstream (RSW-001)	Downstream (RSW-002)
Zinc, Dissolved	µg/L	<0.1 – 1.5	<0.1 – 4.39
Hardness (as CaCO <sub>3</sub> )	mg/L	31 - 84	31 - 78

DNQ: Laboratory detected but not quantified.

#### D. Compliance Summary

In 2008, the annual average total recoverable iron concentration in the downstream receiving water exceeded the secondary MCL of 300 µg/L. As a result, the Discharger evaluated the Facility BMPs and conducted internal storm water monitoring. The Discharger identified red cinders used as road base, backfill, and pavement repairs as a possible source of the elevated iron in the storm water discharge. The Discharger discontinued their use of red cinders at the Facility and updated their BMPs to reflect the changes made to their operations. Since 2008, the annual average total recoverable iron concentration in the receiving water has not exceeded the secondary MCL of 300 ug/L.

#### E. Planned Changes – None

The Discharger has not submitted any planned changes for the Facility to the Central Valley Water Board.

### III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

#### A. Legal Authorities

This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.

#### B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

#### C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plans.** Requirements of this Order specifically implement the applicable Water Quality Control Plans.
  - a. **Basin Plan.** The Central Valley Water Board adopted a Water Quality Control Plan for the Water Quality Control Plan, Fourth Edition (Revised October 2011), for the Sacramento and San Joaquin River Basins (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan.

The Basin Plan at II-2.00 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan in Table II-1, Section II, does not specifically identify beneficial uses for Canyon Creek, but does identify present and potential uses for to the Pit River, to which Canyon Creek, via Burney Creek, is tributary. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, beneficial uses applicable to Canyon Creek are as follows:

**Table F-5. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water Name	Beneficial Use(s)
SW-001	Canyon Creek (Pit River, via Burney Creek)	<p><u>Existing:</u> Municipal and domestic supply (MUN); Agricultural, including irrigation and stock watering (AGR); Hydropower generation (POW); Water contact recreation, including canoeing and rafting (REC-1); Non-contact water recreation (REC-2); Cold fresh water habitat (COLD) Spawning, reproduction, and/or early development, warm and cold (SPWN); and Wildlife habitat (WILD).</p> <p><u>Potential:</u> Warm freshwater habitat (WARM).</p>

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on 22 December 1992, and later amended it on 4 May 1995 and 9 November 1999. About forty criteria in the NTR applied in California. On 18 May 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on 13 February 2001. These rules contain federal water quality criteria for priority pollutants.
3. **State Implementation Policy.** On 2 March 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on 28 April 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Central Valley Water Board in the Basin Plan. The SIP became effective on 18 May 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on 24 February 2005 that became effective on 13 July 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control.

The SIP states in footnote 1, *“This Policy does not apply to regulation of storm water discharges. The SWRCB has adopted precedential decisions addressing regulation of municipal storm water discharges in Orders WQ 91-03, 91-04, 96-13, 98-01, and 99-05. The SWRCB has also adopted two statewide general permits regulating the discharge of pollutants contained in storm water from industrial and construction activities.”* This

Order regulates the discharge of storm water from industrial activity to surface water. Therefore the SIP provisions for establishment of effluent limitations are not applicable and effluent limitations for priority pollutants have not been established. However receiving water limitations and BMPs ensure that beneficial uses of the receiving water are protected and water quality standards are not exceeded.

4. **Bay-Delta Plan.** – Not Applicable
5. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Central Valley Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.
6. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
7. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
8. **Storm Water Requirements.** USEPA promulgated federal regulations for storm water on 16 November 1990 in 40 CFR Parts 122, 123, and 124. The NPDES Industrial Storm Water Program regulates storm water discharges from Steam Electric Generating Facilities, Sawmills, and Planing Mills. Steam Electric Generating Facilities, Sawmills, and Planing Mills facilities are applicable industries under the storm water program and are obligated to comply with the federal regulations.

The storm water discharge from the Facility could be regulated under the existing State Water Board's Industrial Storm Water Permit (Order No. 97-03-DWQ, NPDES No. CAS000001). However, due to the complexity of the Facility and unique threats to water quality, the Central Valley Water Board has elected to regulate this Facility with an individual NPDES permit. Therefore, the Facility has not submitted its NOI to be covered under the General Industrial Storm Water Permit and the discharge of storm water to surface water is covered under this Order.

#### **D. Impaired Water Bodies on CWA 303(d) List**

1. Under section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 30 November 2006 USEPA gave final approval to California's 2006 section 303(d) List of Water Quality Limited Segments. The Basin Plan references this list of Water Quality Limited Segments (WQLSs), which are defined as "...those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources (40 CFR Part 130, et seq.)." The Basin Plan also states, "Additional treatment beyond minimum federal standards will be imposed on dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment." The receiving water has not been 303(d) listed.
2. **Total Maximum Daily Loads (TMDLs).** No TMDL has been adopted for the receiving water.

#### **E. Other Plans, Policies and Regulations**

1. Title 27 of the California Code of Regulations (Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Title 27, section 20090(b) contains an exemption for discharges of wastewater to land where the discharge is covered by WDRs, the discharge is in compliance with the Basin Plan, and the discharge does not need to be managed as a hazardous waste.
2. The Discharger utilizes lined wastewater ponds (log deck recycle pond and power plant pond) to contain industrial wastewater associated with the sawmill and cogeneration facilities. Wastewater pond discharge data for the log deck recycle pond and power plant pond is limited to pH and electrical conductivity (EC). It is not uncommon for the log deck recycle pond water and the power plant pond water to be discharged back and forth to each other. Based on data collected from September 2011 through August 2013, pH has ranged from 7.2 to 8.9 s.u., with an average of 7.8 s.u. Electrical conductivity in the wastewater for the same time period ranged from 520 to 7,680  $\mu\text{mhos/cm}$ , with an average of 4,679  $\mu\text{mhos/cm}$ . The ponds are lined with a single 60-mm HDPE geomembrane and the Discharger is required to perform a leak detection test on the pond liner for both ponds at least once during the permit cycle. Groundwater impacts from the discharge of industrial wastewater to the lined recycle ponds should be insignificant.
3. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt wastewater. The exemption, pursuant to Title 27, section 20090(b), is based on the following:
  - i. The Central Valley Water Board is issuing WDRs.
  - ii. The discharge is in compliance with the Basin Plan, and;
  - iii. The wastewater effluent discharged to the ponds does not need to be managed as hazardous waste.



#### IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

This Order requires the Discharger to implement Best Management Practices (BMPs) in order to support attainment of water quality standards. The use of BMPs to control or abate the discharge of pollutants is allowed by 40 CFR 122.44(k)(3) because numeric effluent limitations are infeasible and BMPs are reasonably necessary to achieve effective effluent limitations and standards or to carry out the purpose and intent of the Clean Water Act. (40 CFR 122.44(k)(4).

Effluent limitations and toxic and pretreatment effluent standards established pursuant to sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the CWA and amendments thereto are applicable to the discharge.

The CWA mandates the implementation of effluent limitations that are as stringent as necessary to meet water quality standards established pursuant to state or federal law [33 U.S.C., §1311(b)(1)(C); 40 CFR 122.44(d)(1)]. NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to criteria specifying maximum amounts of particular pollutants. Pursuant to federal regulations, 40 CFR 122.44(d)(1)(i), NPDES permits must contain limits that control all pollutants that “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality.” Federal regulations, 40 CFR 122.44(d)(1)(vi), further provide that “[w]here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits.”

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where numeric water quality objectives have not been established. The Basin Plan at page IV-17.00, contains an implementation policy, “Policy for Application of Water Quality Objectives”, that specifies that the Central Valley Water Board “will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives.” This Policy complies with 40 CFR 122.44(d)(1). With respect to narrative objectives, the Central Valley Water Board must establish effluent limitations using one or more of three specified sources, including: (1) USEPA’s published water quality criteria, (2) a proposed state criterion (i.e., water quality objective) or an explicit state policy interpreting its narrative water quality criteria (i.e., the Central Valley Water Board’s “Policy for Application of Water Quality Objectives”)(40 CFR 122.44(d)(1)(vi)(A), (B) or (C)), or (3) an indicator parameter.

The Basin Plan includes numeric site-specific water quality objectives and narrative objectives for toxicity, chemical constituents, discoloration, radionuclides, and tastes and odors. The narrative toxicity objective states: “All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.” (Basin Plan at III-8.00) The Basin Plan states that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The narrative chemical constituents objective states that waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. At minimum, “...water designated for use as domestic or

municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs)" in Title 22 of CCR. The Basin Plan further states that, to protect all beneficial uses, the Central Valley Water Board may apply limits more stringent than MCLs. The narrative tastes and odors objective states: "Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses."

#### **A. Discharge Prohibitions**

1. **Prohibition III.A (No discharge of industrial storm water or application of waste other than that described in this Order).** This prohibition is based on Water Code section 13260 that requires filing of a report of waste discharge (ROWD) before discharges can occur. The Discharger submitted a ROWD for the discharges described in this Order; therefore, discharges not described in this Order are prohibited.
2. **Prohibition III.B (No bypasses or overflow of wastewater, except under the conditions at CFR Part 122.41(m)(4)).** As stated in section I.G of Attachment D, Standard Provisions, this Order prohibits bypass from any portion of the treatment facility. Federal regulations, 40 CFR 122.41(m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the federal regulations, 40 CFR 122.41(m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. In considering the Regional Water Board's prohibition of bypasses, the State Water Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the federal regulations, 40 CFR 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation.
3. **Prohibition III.C (No controllable condition shall create a nuisance).** This prohibition is based on Water Code section 13050 that requires water quality objectives established for the prevention of nuisance within a specific area. The Basin Plan prohibits conditions that create a nuisance.
4. **Prohibition III.D, III.E, III.F, III.G (No discharge of waste of sawmill or cogeneration origin to surface water).** Effluent limitation guidelines for wet log storage (40 CFR 429.100) state that there shall be no debris discharged. Debris is defined as woody material such as bark, twigs, branches, heartwood or sapwood that will not pass through a one inch diameter round opening (40 CFR 429.11 (i)). This Order prohibits the discharge of ash, bark, sawdust, wood, debris, or any other wastes originating from the sawmill or cogeneration plant to surface waters or surface water drainage courses. In addition, the Federal Regulations (40 CFR 429.124, 40 CFR 429.134, 40 CFR 429.20) contain a narrative effluent guideline for sawmill operations, which prohibits the discharge of process wastewater pollutants into navigable waters. Process wastewater excludes non-contact cooling water, material storage yard runoff, boiler blowdown and fire control water (40 CFR 429.11(c)). This Order prohibits the discharge of recycle water from log sprinkling, commingled recycle and storm water, cooling tower blowdown, boiler feedwater treatment system effluent, or any other wastes originating from the sawmill or cogeneration plant to surface waters or surface water drainage courses.
5. **Prohibition III.H (No discharge of hazardous or toxic substances).** The Basin Plan provides that all waters shall be maintained free of toxic substances. Water treatment chemicals used in maintaining the water quality within the boiler and cooling tower may cause toxicity to aquatic life. This Order prohibits the discharge of boiler blowdown, hazardous or toxic substances (including water treatment chemicals) to surface waters or

surface water drainage courses. In addition, the Basin Plan states that surface water shall not contain oils, greases, or other materials in concentrations that cause nuisance or result in a visible film or coating on the surface of the water. This Order prohibits the discharge of petroleum products (including oil, grease, gasoline and diesel) to surface waters or surface water drainage courses.

## **B. Technology-Based Effluent Limitations**

### **1. Scope and Authority**

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for Timber Products Processing Point Source Category in 40 CFR part 429. Specifically, Subpart A (Barking Subcategory), Subpart I (Wet Storage Subcategory), and Subpart K (Sawmills and Planing Mills), and Best Practicable Control Technology (BPT), Best Professional Judgment (BPJ), and Best Available Technology (BAT) in accordance with 40 CFR section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Central Valley Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

## 2. Applicable Technology-Based Effluent Limitations

- a. The Discharger operates a “wet deck” log storage operation, a “barking” operation, and a “sawmills and planing mills” operation. Therefore, effluent limitation guidelines (ELGs) established in Timber Products Processing Point Source Category (40 CFR Part 429), specifically, Subpart A (Barking Subcategory), Subpart I (Wet Storage Subcategory), and Subpart K (Sawmills and Planing Mills Subcategory) apply.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT). The following effluent limitations apply to SW-001:

1. Barking - There shall be no discharge of process wastewater into navigable waters.
2. Wet Storage - There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0 at all times. Where, “debris” means woody material such as bark, twigs, branches, heartwood or sapwood that will not pass through a 2.54 cm (1.0 in) diameter round opening and is present in the discharge from a wet storage facility.
3. Sawmills and Planing Mills - There shall be no discharge of process wastewater pollutants into navigable waters.

b. **Summary of Technology-based Effluent Limitations.**

Parameter	Units	Effluent Limitations	
		Instantaneous Minimum	Instantaneous Maximum
pH	Standard Units	6.0	9.0

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

As specified in section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an in-stream excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

Also as specified in Section 122.44(k)(2), best management practices (BMPs) may be used in lieu of numeric effluent limitations when:

- a. authorized under section 304(e) of the CWA for control of toxic pollutants and hazardous substances for ancillary industrial activities;
- b. authorized under section 402(p) of the CWA for the control of storm water discharges;
- c. numeric effluent limitations are infeasible; or

- d. the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purpose and intent of the CWA.

Section 402(p) authorizes regulation of storm water discharges associated with industrial activities. Therefore, a combination of BMPs, numeric effluent limitations, and receiving water limitations are utilized in this Order to regulate the discharge of pollutants.

## 2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

The Basin Plan on page II-1.00 states: “*Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning...*” and with respect to disposal of wastewaters states that “*...disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses.*”

The federal CWA section 101(a)(2), states: “it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983.” Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 CFR sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shell fish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. Section 131.3(e), 40 CFR, defines existing beneficial uses as those uses actually attained after 28 November 1975, whether or not they are included in the water quality standards. Federal Regulation, 40 CFR section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

- a. **Receiving Water and Beneficial Uses.** Refer to III.C.1. for a complete description of the receiving water and beneficial uses.
- b. **Effluent (i.e., Storm Water Discharge) and Ambient Background Data.** Data from January 2008 through December 2012, which includes storm water effluent and ambient background receiving water data submitted in SMRs and the Report of Waste Discharge (ROWD) was used to evaluate compliance with Water Quality Objectives (WQO).
- c. **Conversion Factors.** The CTR contains aquatic life criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, nickel, silver, and zinc which are presented in dissolved concentrations. USEPA recommends conversion factors to translate dissolved concentrations to total concentrations. All effluent and receiving water samples for the subject CTR constituents were analyzed as dissolved concentrations. No conversion factors were used to determine compliance with water quality objectives.

- d. **Hardness-Dependent CTR Metals Criteria.** The *California Toxics Rule* and the *National Toxics Rule* contain water quality criteria for seven metals that vary as a function of hardness. The lower the hardness the lower the water quality criteria. The metals with hardness-dependent criteria include cadmium, copper, chromium III, lead, nickel, silver, and zinc.

### 3. Determining the Need for WQBELs

This Order regulates the discharge of storm water from industrial activity to surface water. The discharge is storm water, therefore the SIP provisions for establishment of effluent limitations for CTR constituents are not applicable to the discharge. However, due to the complexity of the Facility and unique threats to water quality, the Central Valley Water Board has elected to regulate this Facility with an individual NPDES permit and has conducted a review of effluent (storm water) and upstream and downstream receiving water data collected during the term of the last permit cycle and has compared this data with applicable water quality objectives and/or criteria to determine whether WQBELs are necessary to protect water quality. In addition, storm water discharge data has also been compared to storm water benchmark values to assess whether the storm water discharge could potentially impair, or contribute to impairing water quality or affect human health from ingestion of water or fish. The benchmark values are not effluent limits and should not be interpreted as such; they are merely levels which the Central Valley Water Board has used to determine if storm water discharge from a given facility merits further monitoring to ensure that the facility has been successful in implementing the SWPPP.

Storm water and receiving water monitoring data, applicable water quality criteria and objectives, and storm water benchmark values have been provided in Fact Sheet section II.C. and Attachment G.

Most constituents are not discussed in this Order, as the storm water discharge is well below the pollutant benchmark values and/or the water quality objectives/criteria for these constituents. However, the following constituents are notable for discussion upon assessment of the data.

- a. **Chemical Oxygen Demand (COD).** COD is the amount of dissolved oxygen in water consumed by the chemical breakdown of organic and inorganic matter (i.e., COD is not a specific component in a discharge). A high COD value indicates elevated quantities of pollutants in runoff, especially carbon. The storm water benchmark value in the USEPA multi-sector General Permit for Industrial Dischargers for general sawmills and planing mills for chemical oxygen demand is 120 mg/L.

The Discharger sampled the storm water effluent 31 times between January 2008 and December 2012 for COD. The receiving water COD was not monitored. The maximum COD concentration for the storm water discharge is 137 mg/L and occurred on 6 May 2008. After 2008, the highest reported COD in the storm water discharge is 61 mg/L.

The 6 May 2008 storm water sample was the only sample that exceeded the USEPA benchmark value for COD of 120 mg/L. Since 2008, storm water COD has been at or below 61 mg/L and therefore below the storm water benchmark value for COD. This Order maintains the monthly sampling requirement for COD in the storm water discharge. In addition, a storm water benchmark value for COD has been included

in this Order as an “action level” at which the Discharger is required to evaluate and update, if necessary, the Facility’s BMPs in order to reduce the COD in the storm water discharge.

- b. **Electrical Conductivity.** Electrical conductivity measures the ability of water to conduct an electrical current and is important because it directly correlates to the concentration of dissolved salts in the water and therefore affects the quality of water used for drinking, irrigation, and other uses. The California Department of Public Health Drinking Water Standard Secondary MCL for electrical conductivity (EC) is 900  $\mu\text{mhos/cm}$  as a recommended level, 1600  $\mu\text{mhos/cm}$  as an upper level, and 2200  $\mu\text{mhos/cm}$  as a short-term maximum. EC in fresh waters streams typical range from 100 to 2000  $\mu\text{mhos/cm}$  [The receiving water EC range during the past permit cycle is 23 to 245  $\mu\text{mhos/cm}$ , with an average of 88  $\mu\text{mhos/cm}$ ]. Pure rain water typically has a very low EC value (i.e., less than 10  $\mu\text{mhos/cm}$ ).

The Discharger sampled the storm water effluent and receiving water (both upstream and downstream) during the wet season between January 2008 and December 2012 for EC. The maximum EC for the storm water discharge is 834  $\mu\text{mhos/cm}$  and occurred on 17 November 2010. The maximum annual average EC in the storm water discharge is 402  $\mu\text{mhos/cm}$  (in 2009). The reported maximum upstream and downstream receiving water EC are both 245  $\mu\text{mhos/cm}$ .

Based on the data reported for EC by the Discharger, the storm water discharge and receiving water has not exceeded the secondary drinking water MCLs. However, the EC measurements in the Facility storm water discharge exceed the observed range of the receiving water and what would generally be expected in pollutant-free storm water runoff. For this reason, a storm water benchmark value for EC of 500  $\mu\text{mhos/cm}$ , as an annual average, has been established and included in this Order as an “action level” at which the Discharger is required to evaluate and update, if necessary, the Facility’s BMPs in order to reduce the electrical conductivity in the storm water discharge. The value is approximately two times the maximum observed receiving water EC measurement in the receiving water.

- c. **Iron, Total Recoverable.** USEPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for the protection of freshwater aquatic life for iron. The recommended 4-day average (chronic) is 1,000  $\mu\text{g/L}$ . The Secondary MCL – Consumer Acceptance Limit for iron is 300  $\mu\text{g/L}$ . The Basin Plan water quality objectives for chemical constituents requires that water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in Title 22 of the CCR.

The Discharger sampled the storm water effluent and receiving water (both upstream and downstream) between January 2008 and December 2012 for total recoverable iron. Sampling occurred during the wet season only, when the storm water retention pond was discharging to Canyon Creek, therefore receiving water annual averages are computed without dry season iron concentrations.

Total recoverable iron monitoring data for the storm water discharge and the receiving water is summarized in the table below.

**Table F-6. Total Recoverable Iron (µg/L) Monitoring Data**

Year	No. Samples	Stormwater (SW-001)		Upstream Receiving Water		Downstream Receiving Water	
		Min. – Max.	Annual Average	Min. – Max	Annual Average	Min. – Max.	Annual Average
2008	7	167 – 3780	882	164 - 377	259	184 -809	340
2009	4	188 – 2260	706	126 – 211	173	140 -337	226
2010	9	380 -1410	751	124 – 340	195	125 – 562	258
2011	5	251 – 683	464	97 - 184	153	131 – 197	168
2012	6	140 – 1260	643	161 - 338	231	165 - 362	260

Based on the data reported for total recoverable iron by the Discharger, the 2008 average annual iron concentration in the downstream receiving water limitation exceeded the secondary MCL for iron of 300 µg/L. In addition, the freshwater aquatic-life chronic criterion for iron of 1000 µg/L has been exceeded approximately one to two times a monitoring season (i.e. during the wet season).

In response to the 2008 elevated iron concentrations and as discussed in Fact Sheet section II.D., the Discharger evaluated the Facility BMPs and conducted internal storm water monitoring. The Discharger identified red cinders used as road base, backfill, and pavement repairs as a possible source of the elevated iron in the storm water discharge. The Discharger discontinued their use of red cinders at the Facility and updated their BMPs to reflect the changes made to their operations. Since 2008, the annual average total recoverable iron concentration in the receiving water has not exceeded the secondary MCL of 300 µg/L. However, the Facility's storm water discharge continues to periodically exceed the aquatic-life criteria value for iron. For this reason, a storm water benchmark value that reflects the freshwater aquatic-life criteria (1000 µg/L) has been included in this Order as an "action level" at which the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce the concentration of iron in the storm water discharge.

- d. **pH.** The Basin Plan includes a water quality objective for surface waters (except for Goose Lake) that the "...pH shall not be depressed below 6.5 nor raised above 8.5."

Between January 2009 and December 2012 the Discharger sampled the storm water discharge and the upstream and downstream receiving water 89 times for pH. The storm water pH ranged from 6.8 to 7.95 s.u. and the both the upstream and downstream receiving water pH ranged from 7.1 to 7.9 s.u.

The pH in the storm water discharge does not exceed the Basin Plan water quality objective. In addition, the receiving water pH falls within the acceptable range of pH.

Effluent storm water limitations for pH are included in this Order as technology-based effluent limits.

- e. **Settleable Solids.** The Basin Plan states that waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. This Order contains monthly average and daily maximum settleable solids limits of 0.1 ml/l and 0.2 ml/l respectively. The settleable solids limits in this Order are based on what can reasonably be achieved in a well-designed, constructed and operated settling basin for the types of contaminants



encountered in the timber industry (wood debris and soil particles). These limits are consistent with the limits in the previous Order

#### 4. WQBEL Calculations

- a. This Order includes WQBELs for settleable solids. This Order contains monthly average and daily maximum settleable solids limits of 0.1 ml/l and 0.2 ml/l respectively. The settleable solids limits in this Order are based on what can reasonably be achieved in a well-designed, constructed and operated settling basin for the types of contaminants encountered in the timber industry (wood debris and soil particles).

**Table F-7. Summary of Water Quality-based Effluent Limitations  
(Discharge Point SW-001)**

Parameter	Units	Storm Water Effluent Limitations	
		Monthly Average	Maximum Daily
Settleable Solids	mL/L	0.1	0.2

#### 5. Whole Effluent Toxicity (WET)

For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct whole effluent toxicity testing for acute toxicity, as specified in the Monitoring and Reporting Program (Attachment E section V.). Due to the intermittent nature (rainfall-dependent) of the discharge, no chronic whole effluent toxicity monitoring is required. This Order also contains effluent limitations for acute toxicity and requires the Discharger to implement best management practices to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

- a. **Acute Aquatic Toxicity.** The Basin Plan contains a narrative toxicity objective that states, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." (Basin Plan at page III-8.00.) The Basin Plan also states that, "...effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate...". Effluent limitations for acute toxicity have been included in this Order as follows:

**Acute Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

- i. 70%, minimum for any one bioassay; and
- ii. 90%, median for any three consecutive bioassays.

#### D. Final Effluent Limitation Considerations

##### 1. Mass-based Effluent Limitations

40 CFR 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order does not include effluent limitations expressed in terms of mass, as the effluent discharge is storm water and limitations on the storm water have been limited to pH, settleable solids, and acute toxicity. 40 CFR 122.45(f)(1) provides exceptions to mass limitations such as when pollutants cannot appropriately be expressed by mass or when applicable

standards and limitations are expressed in terms of other units of measure. Settleable solids, pH, and acute toxicity are not expressed in terms of mass, as their unit of measure is milliliters per liter, standard units, and percent survival, respectively.

## 2. Averaging Periods for Effluent Limitations

40 CFR 122.45(d) requires maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works unless impracticable. This Order contains effluent (storm water) limitations for settleable solids expressed as a maximum daily limit and average monthly limit.

## 3. Anti-Backsliding Requirements

The Clean Water Act specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in Clean Water Act sections 402(o) or 303(d)(4), or, where applicable, 40 CFR 122.44(l).

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

## 4. Antidegradation Policies

This Order does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The Order requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

## 5. Stringency of Requirements for Individual Pollutants

This Order contains water quality-based effluent (storm water) limitations for settleable solids and acute toxicity. Restrictions on settleable solids and acute toxicity are discussed in section IV.C.3 and IV.C.5., respectively. Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Technology-based pollutant restrictions on pH have been applied to the discharge. This Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

### Summary of Final Storm Water Effluent Limitations Discharge Point SW-001

**Table F-8. Summary of Final Storm Water Effluent Limitations**

Parameter	Units	Effluent Limitations				Basis
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Settleable Solids	mL/L	0.1	0.2	--		Basin Plan
pH	s.u.	--	--	6.0	9.0	Tech

Parameter	Units	Effluent Limitations				Basis
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Acute Toxicity	% Survival	No less than 70%, minimum for any one bioassay; and 90%, median for any three consecutive bioassays.				Basin Plan

**E. Interim Effluent Limitations – Not Applicable**

**F. Land Discharge Specifications**

1. Land discharge specifications are necessary to protect the beneficial uses of the groundwater. The Discharger has two wastewater management units; a 3-million-gallon lined log deck recycle pond and a 1-million-gallon lined power plant pond, which, if improperly maintained, have the potential to affect the beneficial uses of groundwater.

**G. Recycling Specifications – Not Applicable**

**V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

Basin Plan water quality objectives to protect the beneficial uses of surface water and groundwater include numeric objectives and narrative objectives, including objectives for chemical constituents, toxicity, and tastes and odors. The toxicity objective requires that surface water and groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective requires that surface water and groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use or that exceed the maximum contaminant levels (MCLs) in Title 22, CCR. The tastes and odors objective states that surface water and groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances in concentrations that adversely affect domestic drinking water supply, agricultural supply, or any other beneficial use.

Receiving water limitations are also used in this permit to ensure that the regulated storm water discharge does not cause the water quality of the receiving water to exceed an applicable standard.

**A. Surface Water**

1. CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Central Valley Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that “[t]he numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect the beneficial uses.” The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains receiving surface water limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, color, chemical constituents, dissolved oxygen, floating material, nutrients, oil and grease, pH, pesticides, radioactivity, suspended

sediment, settleable substances, suspended material, tastes and odors, temperature, toxicity, and turbidity.

2. This Order requires the Discharger to comply with all applicable water quality standards for waters of the United States that may be affected by the Discharger's industrial storm water discharge. Water quality standards apply to the quality of the receiving water, not the quality of the industrial storm water discharge.

## **B. Groundwater**

1. The beneficial uses of the underlying groundwater are municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply.
2. Basin Plan water quality objectives include narrative objectives for chemical constituents, tastes and odors, and toxicity of groundwater. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective states groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use. The tastes and odors objective prohibits taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan also establishes numerical water quality objectives for chemical constituents and radioactivity in groundwaters designated as municipal supply. These include, at a minimum, compliance with MCLs in Title 22 of the CCR. The Basin Plan requires the application of the most stringent objective necessary to ensure that waters do not contain chemical constituents, toxic substances, radionuclides, taste- or odor-producing substances, or bacteria in concentrations that adversely affect municipal or domestic supply, agricultural supply, industrial supply or some other beneficial use.
3. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

## **VI. RATIONALE FOR PROVISIONS**

### **A. Standard Provisions**

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

## **B. Special Provisions**

### **1. Reopener Provisions**

- a. **Mercury.** This provision allows the Central Valley Water Board to reopen this Order in the event mercury is found to be causing toxicity based on acute or chronic toxicity test results, or if a TMDL program is adopted. In addition, this Order may be reopened if the Central Valley Water Board determines that a mercury offset program is feasible for dischargers subject to NPDES permits.
- b. **Underdrain Evaluation.** This Order may be reopened for modification, or revocation and reissuance, as a result of the findings in the Underdrain Evaluation.
- c. **Log Deck Flushing Update.** This Order may be reopened for modification, or revocation and reissuance, as a result of the findings of the Log Deck Flushing Update.

### **2. Special Studies and Additional Monitoring Requirements**

- a. **Log Deck Flushing Update.** The Discharger shall develop a plan for conducting an update to their Log Deck Flushing Study. The Plan shall be submitted to the Central Valley Water Board for approval within **6 months of the effective date of this Order**. The results of the Log Deck Flushing Update shall be submitted within **30 months of the effective date of this Order**. The intent of the Update is to verify the results of the previous Log Deck Flushing Study and update, if needed, the minimum volume of flush or “amount of rainfall” that is necessary to ensure residual pollutants on the log deck are reduced to acceptable concentrations prior to initiating storm water discharge from the log deck area to the storm water retention basin and off site to surface water. [The “flush” rainfall volume is discharged to the Log Deck Recycle Pond and not to surface water]. At minimum, the following pollutants must be addressed in the study: tannins & lignins, electrical conductivity, chemical oxygen demand, and turbidity.
- b. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to develop and implement a site-specific SWPPP for the Facility. The SWPPP shall be submitted to the Central Valley Water Board **within 6 months following the effective date of this Order**. The SWPPP is necessary to develop site-specific best management practices in order to reduce pollutants in the storm water discharge.
- c. **BMP Improvement Evaluation.** In order to address storm water benchmark exceedances and/or receiving water limitation violations, the Discharge must evaluate BMPs and make necessary improvements to the facility BMPs in order to reduce pollutants in the storm water discharge and to ensure protection of water quality.
- d. **Leak Detection.** In order to ensure groundwater quality protection, the Discharger shall conduct a leak detection testing on both the log-deck recycle pond and power plant pond liners.
- e. **Underdrain Evaluation.** In order to determine to the source of drainage collection under the log-deck recycle pond the Discharger shall conduct an underdrain evaluation.

### 3. Best Management Practices and Pollution Prevention

This Order requires the Discharger to implement BMPs, including treatment controls where necessary, in order to support attainment of water quality standards. The use of BMPs to control or abate the discharge of pollutants is allowed by 40 CFR section 122.44(k)(3) because effluent limitations are infeasible and BMPs are reasonably necessary to achieve effluent limitations and are standards or to carry out the purposes and intent of the Clean Water Act. (40 CFR 122.44(k)(4).)

- a. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to develop and implement a site-specific Storm Water Pollution Prevention Plan for the Facility. The SWPPP is necessary to identify potential sources of pollutants that may come in contact with storm water and to control or abate the discharge of pollutants to surface water or groundwater.
- b. **SWPPP Revisions.** In order to maintain an accurate and useful SWPPP, the SWPPP must be revised when whenever there is a change in construction, site operation, or maintenance, which may affect the discharge of significant quantities of pollutants to surface water or groundwater. The SWPPP must also be amended if there are violations of this Order, or the Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges.
- c. **Facility-Specific BMP - First Flush Collection.** This Order specifies a Facility-specific BMP that defines a quantity of storm water that must be collected, after cessation of log-sprinkling, and discharged to the Facility log-deck recycle pond prior to subsequent storm water being allowed to be discharged off-site to surface water. The BMP was developed by the Discharger after performing log-deck flushing study which identified a minimum amount of rainfall needed to “flush” the log-deck area of pollutants related to the dry season sprinkling activity. The first flush collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with pond water during the wet season.

### 4. Construction, Operation, and Maintenance Specifications

- a. The operation and maintenance specifications for the log deck pond, power plant pond, and storm water retention pond are necessary to protect the beneficial uses of the surface waters and groundwater. The specifications included in this Order are retained from Order No. R5-2007-0061.
- b. Anaerobic (lacking oxygen) processes tend to produce aesthetically undesirable odors. To minimize production of undesirable odors, the Discharger is required to maintain some (at least 1.0 mg/L) dissolved oxygen in the upper one foot of the log deck pond and power plant pond.

### 5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

### 6. Other Special Provisions

- a. **Sludge Disposal.** Sludge disposal provisions are necessary to ensure proper disposal of collected screening, sludges, wood ash, wood waste, and other solids removed from liquid wastes, recycle pond, retention pond, power plant pond, oil/water separators, catch basins, or other sources in a manner that is consistent with Chapter 15, Division 3, Title 23, CCR, and approved by the Executive Officer.

- b. **Benchmark Values.** The storm water benchmark values are pollutant concentrations, above which, the Central Valley Water Board has determined represent a level above which the storm water discharge could adversely affect receiving water quality (and control measures must be evaluated). The storm water benchmark levels are not effluent limitations. The levels are used to determine if storm water discharge from the facility merits further monitoring to ensure that the facility has been successful in implementing the SWPPP and/or if storm water pollution control measures must be reevaluated and improved upon.

## **7. Compliance Schedules – Not Applicable**

## **VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS**

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E, establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

### **A. Influent Monitoring – Not Applicable**

### **B. Effluent Monitoring (Storm Water Discharge)**

1. Pursuant to the requirements of 40 CFR 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.
2. Storm water effluent monitoring frequencies and sample types for settleable solids (weekly) and acute toxicity (2/year) have been retained from Order No. R5-2007-0061 to determine compliance with effluent limitations for these parameters.
3. Storm water effluent monitoring frequencies and sample types for pH, turbidity, COD, tannins & lignins, total dissolved solids, total suspended solids, copper, iron, lead, zinc, and oil & grease have been retained from Order No. R5-2007-0061 to assess effectiveness of the facility BMPs, impacts to receiving water and groundwater, and to assess compliance with receiving water limitations.
4. Storm water effluent monitoring frequency for flow has been increased from weekly to daily in order to determine the frequency of discharge from the storm water retention basin and to quantify the storm water discharge.
5. Storm water effluent monitoring frequency for electrical conductivity has been increased from monthly to weekly to assess effectiveness of facility BMPs and impacts to receiving water and groundwater.
6. Storm water effluent monitoring frequency for hardness as  $\text{CaCO}_3$  has been increased from quarterly to monthly to allow for concurrent monitoring with storm water metals monthly monitoring. Hardness values are necessary for hardness-dependent metals criteria calculation.
7. Storm water effluent monitoring for dissolved oxygen (weekly) has been added to assess impacts to receiving water.

8. Storm water effluent monitoring frequencies for cadmium and silver have been reduced from monthly to 2/year as these parameters were not detected in the samples collected during the previous Order.
9. Storm water effluent monitoring frequency for priority pollutants has changed from bi-annually to annually during the third and fourth year of the Order. The annual monitoring shall occur during the first storm water discharge event after the dry season in order to assess effectiveness of facility BMPs.
10. California Water Code section 13176, subdivision (a), states: "The analysis of any material required by [Water Code sections 13000-16104] shall be performed by a laboratory that has accreditation or certification pursuant to Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code." The Department of Public Health certifies laboratories through its Environmental Laboratory Accreditation Program (ELAP).

Section 13176 cannot be interpreted in a manner that would violate federal holding time requirements that apply to NPDES permits pursuant to the Clean Water Act. (Wat. Code §§ 13370, subd. (c), 13372, 13377.) Section 13176 is inapplicable to NPDES permits to the extent it is inconsistent with Clean Water Act requirements. (Wat. Code § 13372, subd. (a).) The holding time requirements are 15 minutes for chlorine residual, dissolved oxygen, and pH, and immediate analysis is required for temperature. (40 C.F.R. § 136.3(e), Table II) Due to the location of the Facility, it is both legally and factually impossible for the Discharger to comply with section 13176 for constituents with short holding times.

#### **C. Whole Effluent Toxicity Testing Requirements**

1. **Acute Toxicity.** Semi-annual 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity.
2. **Chronic Toxicity.** Bi-annual monitoring for three species chronic toxicity monitoring has not been retained from Order R5-2007-0061 due to the intermittent nature of the storm water discharge and the infeasibility of continuous (i.e., multi-day) sample collection, which is required of the analysis.

#### **D. Receiving Water Monitoring**

##### **1. Surface Water**

- a. Receiving water monitoring during the discharge period is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream.
- b. Receiving water monitoring frequencies and sample types for flow, pH, electrical conductivity, turbidity, temperature (weekly), and copper, iron, lead, and zinc (monthly) have been retained from Order R5-2007-0061.
- c. Receiving water monitoring for hardness as  $\text{CaCO}_3$  has been increased from 2/year to monthly to allow for concurrent monitoring with receiving water metals monitoring. Hardness values are necessary for hardness-dependent metals criteria calculation.
- d. Receiving water monitoring frequencies for cadmium and silver have been reduced from monthly to 2/year as these parameters were not detected in the receiving water samples collected during the previous Order.
- e. Receiving water monitoring for tannins & lignins, total dissolved solids, and total suspended solids have not been retained from Order R5-2007-0061. Storm water



discharge monitoring for these parameters is required by this Order and such monitoring is sufficient to assess the effectiveness of facility BMPs. Further, since specific numeric receiving water quality objectives do not exist for these parameters, monitoring in the receiving water isn't necessary for compliance determination.

- f. Receiving water monitoring for priority pollutants (bi-annual) have not been maintained from Order R5-2007-0061. Priority pollutant receiving water data collected during the previous Order has provided adequate background information on the receiving water. Further, specific priority pollutants of concern such as copper, lead, zinc, silver, and cadmium, are monitored in the receiving water routinely during the year.

## **2. Groundwater – Not Applicable**

### **E. Other Monitoring Requirements**

#### **1. Ash and Cooling Tower Sludge**

The annual ash and cooling tower sludge report is necessary to determine the quantity of ash and cooling tower sludge generated at the facility and to ensure the proper handling of such material.

#### **2. Precipitation Monitoring**

Precipitation monitoring is necessary to assess rainfall events and to determine compliance with monitoring requirements.

#### **3. Land Discharge Monitoring**

- a. Log deck recycle pond, power plant pond, and storm water retention pond monitoring requirements for freeboard, pH, and electrical conductivity are necessary to assess compliance with pond operating requirements and to assess the impacts of the discharge on the and groundwater.
- b. Log deck recycle pond and power plant pond monitoring for chemical oxygen demand, chloride, sulfate, total dissolved solids, iron, and manganese is necessary to assess the impacts of the discharge on the and groundwater.

4. **Storm Water Characterization Study.** A storm water characterization study is required to ensure adequate information is available for the next permit renewal.

## **VIII. PUBLIC PARTICIPATION**

The Central Valley Water Board has considered the issuance of WDR's that will serve as an NPDES permit for Burney Forest Power. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDR's and has encouraged public participation in the WDR adoption process.

### **A. Notification of Interested Parties**

The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through physical posting at the Facility and by internet posting on the Central Valley Water Board's website.

The public had access to the agenda and any changes in dates and locations through the

Central Valley Water Board's website at:  
**<http://www.waterboards.ca.gov/centralvalley>**

## **B. Written Comments**

Interested persons were invited to submit written comments concerning tentative WDR's as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Central Valley Water Board at 364 Knollcrest Drive, Suite 205, Redding, CA 96002.

To be fully responded to by staff and considered by the Central Valley Water Board, the written comments were due at the Central Valley Water Board office by 5:00 p.m. on 10 February 2014.

## **C. Public Hearing**

The **Central Valley Water Board** held a public hearing on the tentative WDR's during its regular Board meeting on the following date and time and at the following location:

Date: **27/28 March 2014**  
Time: 8:30 a.m.  
Location: Regional Water Quality Control Board, Central Valley Region  
11020 Sun Center Dr., Suite #200  
Rancho Cordova, CA 95670

Interested persons were invited to attend. At the public hearing, the Central Valley Water Board heard testimony pertinent to the discharge, WDR's, and permit. For accuracy of the record, important testimony was requested in writing.

## **D. Reconsideration of Waste Discharge Requirements**

Any aggrieved person may petition the State Water Board to review the decision of the Central Valley Water Board regarding the final WDR's. The petition must be received by the State Water Board at the following address within 30 calendar days of the Central Valley Water Board's action:

State Water Resources Control Board  
Office of Chief Counsel  
P.O. Box 100, 1001 I Street  
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see  
[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

## **E. Information and Copying**

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Valley Water Board by calling (530) 224-4845.

## **F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDR's and NPDES permit should contact the Central Valley Water Board, reference this facility, and provide a name, address, and phone number.

**G. Additional Information**

Requests for additional information or questions regarding this order should be directed to Daniel L. Warner at (530) 224-4848.

## ATTACHMENT G – SUMMARY OF STORM WATER COMPLIANCE WITH RECEIVING WATER OBJECTIVES

Constituent	Units	Max SW-001	Max RW UP	Max RW DOWN	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RW Obj. Met?
Cadmium, Dissolved <sup>1</sup>	ug/L	<0.004	<0.02	<0.02	0.22	1.2	0.94	--	--	0.17	5	Yes
Copper, Dissolved <sup>1</sup>	ug/L	4.7	2.5	2.71	3.3	4.5	3.3	--	--	4.5	1000	Yes
Electrical Conductivity	umhos/cm	834	245	245	900	--	--	--	--	--	900 <sup>2</sup>	Yes
Iron, Total Recoverable	ug/L	3780 882 <sup>3</sup>	377 259 <sup>3</sup>	562 340 <sup>3</sup>	300	--	1000	--	--	300	300 <sup>2</sup>	See Fact Sheet Section IV.C
Lead, Dissolved <sup>1</sup>	ug/L	0.145	0.068	0.076	0.7	17.7	0.7	--	--	--	15	Yes
Silver, Dissolved <sup>1</sup>	ug/L	<0.01	<0.02	<0.01	0.5	0.5	--	--	--	10	100 <sup>2</sup>	Yes
Zinc, Dissolved <sup>1</sup>	ug/L	10.8	1.5	4.39	13.0	44.0	44.0	--	--	13.0	5000 <sup>2</sup>	Yes
Total Dissolved Solids	mg/L	411	58.2	71.3	500	--	--	--	--	--	500 <sup>2</sup>	n/a

Data set from January 2008 – December 2012, unless otherwise noted.

Max SW-001 = Maximum Storm Water Concentration

Max RW-UP = Maximum Upstream Receiving Water Concentration or lowest detection level, if all values are non-detect.

Max RW-DOWN = Maximum Downstream Receiving Water Concentration or lowest detection level, if all values are non-detect.

C = Lowest Criterion

CMC = Criterion Maximum Concentration (CTR or NTR)

CCC = Criterion Continuous Concentration (CTR or NTR)

Water & Org = Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)

Org. Only = Human Health Criterion for Consumption of Organisms Only (CTR or NTR)

Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective

MCL = Drinking Water Standards Maximum Contaminant Level (Primary MCL)

<sup>1</sup> Hardness-dependent criterion was calculated with the lowest observed downstream receiving water hardness concentration of 31 mg/L as CaCO<sub>3</sub>.

<sup>2</sup> Secondary MCL

<sup>3</sup> Max annual average.

<sup>4</sup> Max annual average.

**ATTACHMENT H – CALCULATION OF WQBELS - NOT APPLICABLE**

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## ATTACHMENT I – STORM WATER CHARACTERIZATION STUDY

- I. Background.** A storm water monitoring study is required to ensure adequate information is available for the next permit renewal. During the third and fourth year of this permit term, the Discharger shall conduct annual monitoring of the storm water effluent at SW-001 for all priority pollutants and other constituents of concern as described in Attachment I. The annual monitoring shall consist of sample collection during the first hour (during daylight hours) of the first discharge after the dry season. Storm water pH and hardness are required to evaluate the toxicity of certain priority pollutants (such as heavy metals) where the toxicity of the constituents varies with pH and/or hardness. In addition to priority pollutant monitoring, the Central Valley Water Board is requiring the following monitoring:
- A. Drinking water constituents.** Constituents for which drinking water Maximum Contaminant Levels (MCLs) have been prescribed in the California Code of Regulation are included in the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (Basin Plan). The Basin Plan defines virtually all surface waters within the Central Valley Region as having existing or potential beneficial uses for municipal and domestic supply. The Basin Plan further requires that, at a minimum, water designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents in excess of the MCLs contained in the California Code of Regulations.
  - B. Storm water temperature.** This is both a concern for application of certain temperature-sensitive constituents, such as fluoride, and for compliance with the Basin Plan's thermal discharge requirements.
  - C. Storm water hardness and pH.** These are necessary because several of the constituents are hardness and pH dependent.
- II. Monitoring Requirements.**
- A. Sampling.** During the third and fourth year of this permit term, the Discharger shall conduct annual monitoring of the storm water effluent at SW-001 for all priority pollutants and other constituents of concern as listed in Table I-1. The annual monitoring shall consist of sample collection during the first hour (during daylight hours) of the first discharge after the dry season. The results of such monitoring shall be submitted to the Central Valley Water Board by **1<sup>st</sup> day of the second month following sample collection.**
  - B. Sample type.** All storm water samples shall be taken as grab samples.
  - E. Additional Monitoring/Reporting Requirements.** The Discharger shall conduct the monitoring and reporting in accordance with the General Monitoring Provisions and Reporting Requirements in Attachment E.

**Table I-1. Priority Pollutants and Other Constituents of Concern**

CTR #	Constituent	CAS Number	Maximum Reporting Level <sup>1</sup> µg/L or noted
28	1,1-Dichloroethane	75343	1
30	1,1-Dichloroethene	75354	0.5
41	1,1,1-Trichloroethane	71556	2
42	1,1,2-Trichloroethane	79005	0.5
37	1,1,2,2-Tetrachloroethane	79345	0.5
75	1,2-Dichlorobenzene	95501	2
29	1,2-Dichloroethane	107062	0.5
	cis-1,2-Dichloroethene	156592	
31	1,2-Dichloropropane	78875	0.5
101	1,2,4-Trichlorobenzene	120821	1
76	1,3-Dichlorobenzene	541731	2
32	1,3-Dichloropropene	542756	0.5
77	1,4-Dichlorobenzene	106467	2
17	Acrolein	107028	2
18	Acrylonitrile	107131	2
19	Benzene	71432	0.5
20	Bromoform	75252	2
34	Bromomethane	74839	2
21	Carbon tetrachloride	56235	0.5
22	Chlorobenzene (mono chlorobenzene)	108907	2
24	Chloroethane	75003	2
25	2- Chloroethyl vinyl ether	110758	1
26	Chloroform	67663	2
35	Chloromethane	74873	2
23	Dibromochloromethane	124481	0.5
27	Dichlorobromomethane	75274	0.5
36	Dichloromethane	75092	2
33	Ethylbenzene	100414	2
88	Hexachlorobenzene	118741	1
89	Hexachlorobutadiene	87683	1
91	Hexachloroethane	67721	1
94	Naphthalene	91203	10
38	Tetrachloroethene	127184	0.5
39	Toluene	108883	2

<sup>1</sup> The reporting levels required in these tables for priority pollutant constituents are established based on Section 2.4.2 and Appendix 4 of the SIP.

CTR #	Constituent	CAS Number	Maximum Reporting Level <sup>1</sup> µg/L or noted
40	trans-1,2-Dichloroethylene	156605	1
43	Trichloroethene	79016	2
44	Vinyl chloride	75014	0.5
	Methyl-tert-butyl ether (MTBE)	1634044	
	Trichlorofluoromethane	75694	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	76131	
	Styrene	100425	
	Xylenes	1330207	
60	1,2-Benzanthracene	56553	5
85	1,2-Diphenylhydrazine	122667	1
45	2-Chlorophenol	95578	5
46	2,4-Dichlorophenol	120832	5
47	2,4-Dimethylphenol	105679	2
49	2,4-Dinitrophenol	51285	5
82	2,4-Dinitrotoluene	121142	5
55	2,4,6-Trichlorophenol	88062	10
83	2,6-Dinitrotoluene	606202	5
50	2-Nitrophenol	25154557	10
71	2-Chloronaphthalene	91587	10
78	3,3'-Dichlorobenzidine	91941	5
62	3,4-Benzofluoranthene	205992	10
52	4-Chloro-3-methylphenol	59507	5
48	4,6-Dinitro-2-methylphenol	534521	10
51	4-Nitrophenol	100027	10
69	4-Bromophenyl phenyl ether	101553	10
72	4-Chlorophenyl phenyl ether	7005723	5
56	Acenaphthene	83329	1
57	Acenaphthylene	208968	10
58	Anthracene	120127	10
59	Benzidine	92875	5
61	Benzo(a)pyrene (3,4-Benzopyrene)	50328	2
63	Benzo(g,h,i)perylene	191242	5
64	Benzo(k)fluoranthene	207089	2
65	Bis(2-chloroethoxy) methane	111911	5
66	Bis(2-chloroethyl) ether	111444	1
67	Bis(2-chloroisopropyl) ether	39638329	10



CTR #	Constituent	CAS Number	Maximum Reporting Level <sup>1</sup> µg/L or noted
68	Bis(2-ethylhexyl) phthalate	117817	5
70	Butyl benzyl phthalate	85687	10
73	Chrysene	218019	5
81	Di-n-butylphthalate	84742	10
84	Di-n-octylphthalate	117840	10
74	Dibenzo(a,h)-anthracene	53703	0.1
79	Diethyl phthalate	84662	10
80	Dimethyl phthalate	131113	10
86	Fluoranthene	206440	10
87	Fluorene	86737	10
90	Hexachlorocyclopentadiene	77474	5
92	Indeno(1,2,3-c,d)pyrene	193395	0.05
93	Isophorone	78591	1
98	N-Nitrosodiphenylamine	86306	1
96	N-Nitrosodimethylamine	62759	5
97	N-Nitrosodi-n-propylamine	621647	5
95	Nitrobenzene	98953	10
53	Pentachlorophenol	87865	1
99	Phenanthrene	85018	5
54	Phenol	108952	1
100	Pyrene	129000	10
	Aluminum	7429905	
1	Antimony	7440360	5
2	Arsenic	7440382	2
	Barium	7440393	
3	Beryllium	7440417	2
4	Cadmium	7440439	0.25
5a	Chromium (III)	7440473	50
5b	Chromium (VI)	18540299	10
6	Copper	7440508	2
14	Cyanide	57125	5
	Fluoride	7782414	
	Iron	7439896	
7	Lead	7439921	0.5
8	Mercury	7439976	0.2
	Manganese	7439965	
	Molybdenum	7439987	

CTR #	Constituent	CAS Number	Maximum Reporting Level <sup>1</sup> µg/L or noted
9	Nickel	7440020	20
10	Selenium	7782492	2
11	Silver	7440224	0.25
12	Thallium	7440280	1
	Tributyltin	688733	
13	Zinc	7440666	10
110	4,4'-DDD	72548	0.05
109	4,4'-DDE	72559	0.05
108	4,4'-DDT	50293	0.01
112	alpha-Endosulfan	959988	0.02
103	alpha-Hexachlorocyclohexane (BHC)	319846	0.01
	Alachlor	15972608	
102	Aldrin	309002	0.005
113	beta-Endosulfan	33213659	0.01
104	beta-Hexachlorocyclohexane	319857	0.005
107	Chlordane	57749	0.1
106	delta-Hexachlorocyclohexane	319868	0.005
111	Dieldrin	60571	0.01
114	Endosulfan sulfate	1031078	0.05
115	Endrin	72208	0.01
116	Endrin Aldehyde	7421934	0.01
117	Heptachlor	76448	0.01
118	Heptachlor Epoxide	1024573	0.01
105	Lindane (gamma-Hexachlorocyclohexane)	58899	0.02
119	PCB-1016	12674112	0.5
120	PCB-1221	11104282	0.5
121	PCB-1232	11141165	0.5
122	PCB-1242	53469219	0.5
123	PCB-1248	12672296	0.5
124	PCB-1254	11097691	0.5
125	PCB-1260	11096825	0.5
126	Toxaphene	8001352	0.5
	Atrazine	1912249	
	Bentazon	25057890	
	Carbofuran	1563662	
	2,4-D	94757	

CTR #	Constituent	CAS Number	Maximum Reporting Level <sup>1</sup> µg/L or noted
	Dalapon	75990	
	1,2-Dibromo-3-chloropropane (DBCP)	96128	
	Di(2-ethylhexyl)adipate	103231	
	Dinoseb	88857	
	Diquat	85007	
	Endothal	145733	
	Ethylene Dibromide	106934	
	Glyphosate	1071836	
	Methoxychlor	72435	
	Molinate (Ordram)	2212671	
	Oxamyl	23135220	
	Picloram	1918021	
	Simazine (Princep)	122349	
	Thiobencarb	28249776	
16	2,3,7,8-TCDD (Dioxin)	1746016	
	2,4,5-TP (Silvex)	93765	
	Diazinon	333415	0.015 µg/L*
	Chlorpyrifos	2921882	0.014 µg/L*
	Ammonia (as N)	7664417	
	Chloride	16887006	
	Flow		
	Hardness (as CaCO <sub>3</sub> )		
	Foaming Agents (MBAS)		
	Mercury, Methyl	22967926	0.06 ng/L*
	Nitrate (as N)	14797558	2,000
	Nitrite (as N)	14797650	400
	pH		0.1
	Phosphorus, Total (as P)	7723140	
	Specific conductance (EC)		
	Sulfate		500
	Sulfide (as S)		
	Sulfite (as SO <sub>3</sub> )		
	Temperature		
	Total Dissolved Solids (TDS)		

\*Total Maximum Daily Load (TMDL) for this constituent, which requires a maximum RL to determine reasonable potential and determine compliance with the TMDL.

**ATTACHMENT J – DIOXIN AND FURAN SAMPLING - NOT APPLICABLE**